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ABSTRACT

This report documents a hearing to extend authorization of appropriations under the Vocational Education Act of 1963. The discussion focuses on research and program improvement in vocational education funded by vocational education appropriations as authorized in the Vocational Education Act. Testimony includes prepared statements, letters, and supplemental materials from four individuals representing the Oklahoma State Department of Vocational-Technical Education; Vocational-Technical Education Consortium of States; the National Center for Research in Vocational Education; and the Assistant Secretary for Vocational and Adult Education, United States Department of Education. (YLB)

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HEARINGS ON REAUTHORIZATION OF THE VOCATIONAL EDUCATION ACT OF 1963

Part 16: Research and Program Improvement

HEARING

BEFORE THE

SUBCOMMITTEE ON ELEMENTARY, SECONDARY, AND VOCATIONAL EDUCATION

OF THE

COMMITTEE ON EDUCATION AND LABOR
HOUSE OF REPRESENTATIVES

NINETY-SEVENTH CONGRESS

SECOND SESSION

ON

H.R. 66

TO EXTEND THE AUTHORIZATION OF APPROPRIATIONS UNDER THE VOCATIONAL EDUCATIONAL ACT OF 1963

HEARING HELD IN WASHINGTON, D.C., ON
JUNE 23, 1982

Printed for the use of the Committee on Education and Labor

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HEARINGS ON REAUTHORIZATION OF THE VOCATIONAL EDUCATION ACT OF 1963

Part 16: Research and Program Improvement

WEDNESDAY, JUNE 23, 1982

House of Representatives,
Subcommittee on Elementary, Secondary,
and Vocational Education,
Committee on Education and Labor,
Washington, D.C.

The subcommittee met, pursuant to call, at 9:30 a.m., in room 2175, Rayburn House Office Building, Hon. Carl D. Perkins (chairman of the subcommittee) presiding.

Members present: Representatives Perkins and Erdahl.

Staff present: John F. Jennings, majority counsel; Richard DiEugenio, minority legislative associate; and Nancy Kober, majority legislative specialist.

Chairman **Perkins**. Good morning to all of you. The committee will come to order.

The Subcommittee on Elementary, Secondary, and Vocational Education is continuing its hearings today on the reauthorization of the Vocational Education Act. This morning we will focus on research and program improvement in vocational education.

The legislation authorizes the Secretary to reserve 5 percent of the vocational education appropriations for programs of national significance. These funds may be used to make grants for research, exemplary projects, curriculum development and other national program improvement activities.

In addition, part of the reserved funds are used to support a National Center for Research in Vocational Education.

The act also authorizes grants to the States for program improvement and supportive services. States can use these funds to support research, curriculum development, exemplary projects and other activities to improve programs at the State level.

This morning, we will hear from several distinguished witnesses regarding the use of these funds at the national and State level.

We have a panel here this morning, Dr. Robert Worthington, Assistant Secretary for Vocational and Adult Education, U.S. Department of Education, accompanied by Dr. Howard Hjelm, Director, Division of National Vocational Programs; Dr. Robert Taylor, director, National Center for Research in Vocational Education, Columbus, Ohio; Dr. Charles O. Hopkins, Oklahoma State Department of Vocational-Technical Education, Stillwater; Dr. Ronald McCage, V-Tecs Consortium of States, Southern Association of Colleges and Schools, Atlanta, Ga.

Come on around. Let's hear from the panel, starting off with Dr. Robert Worthington. All of you come on around to the table. We will be delighted to hear from you this morning.

Dr. Worthington, we welcome you here, and you can lead off this morning.

STATEMENT OF ROBERT WORTHINGTON, ASSISTANT SECRETARY FOR VOCATIONAL AND ADULT EDUCATION, U.S. DEPARTMENT OF EDUCATION, ACCOMPANIED BY HOWARD HJELM, DIRECTOR, DIVISION OF NATIONAL VOCATIONAL PROGRAMS

Dr. WORTHINGTON. Thank you very much, Mr. Chairman. I am pleased to be here. I want to take this opportunity, Mr. Chairman, to commend you for your long-time interest and support of vocational education. As a professional vocational educator, I know the great contribution you personally have made.

I am very pleased to be here to discuss some of the programs of vocational education research and improvement authorized by the Education Amendments of 1976. First, I would like to provide a broad overview of all the programs funded under the programs of national significance, and then report separately on the programs specifically requested by the subcommittee.

Additionally, I will outline the Department's legislative proposal for national discretionary programs and discuss the priorities contained in that proposal.

Six major activities are supported under the programs of national significance authority. These include: (1) National discretionary projects, (2) the National Center for Research in Vocational Education, (3) six curriculum coordination centers, (4) the leadership development fellowship program, (5) the teacher certification fellowship program, and (6) the National Occupational Information Coordinating Committee.

At your request, Mr. Chairman, the leadership development program, the teacher certification fellowship program, and the National Occupational Information Coordinating Committee will not be discussed in this statement, because they have been covered in past hearings or will be covered in future hearings.

From fiscal year 1977 through fiscal year 1982, 6 fiscal years, approximately $92.2 million has been appropriated for programs of national significance, ranging from a high of $28.7 million in fiscal year 1978 to a low of $7.5 million in 1982. These figures include those funds appropriated under the Smith-Hughes Act which are used by the programs of national significance. Attached to my testimony is a table showing the amount of funds allocated to each of the six activities by program year.

Of the total of $84.8 million allocated for these programs during the first 5 years, approximately 36 percent has been spent on national discretionary projects; approximately 30 percent has been used to support the national center, and almost 22 percent has been allocated to the National Occupational Information Coordinating Committee.

The programs of national significance support the functions of applied studies, curriculum development, demonstration, dissemination and training. Through these activities, a nationwide program improvement network has been established. In addition to the Federal activities, this network includes the 57 State and outlying area research coordinating units. Some States, including Kentucky, Florida, Iowa, New Jersey, and Illinois have developed a comprehensive research coordinating unit model, Mr. Chairman, which involves all program improvement functions in the State.

Included as a part of this comprehensive network are the State liaison representatives who work with the State occupational specialists and the curriculum coordination centers, the State personnel development coordinators, and the 37 State curriculum laboratories. Through this network, program improvement services are provided to local vocational education programs, and to postsecondary and adult vocational-technical education programs as well.

As you requested, a brief description of programs and activities undertaken by the States, using Federal funds for program improvement and supportive services is attached as an addendum to this statement.

Federally contracted projects of national significance provide a basis for leadership needed to improve the quality of vocational education. They focus on areas which individual States would have difficulty addressing, or which would be duplicated across States. These projects have produced information for decisionmaking and policy concerning national problems, and have also developed materials for changing and for emerging occupational areas.

The applied research projects focus on national problems and issues, consistent with the priorities established by the Secretary and the Assistant Secretary for Vocational and Adult Education, as well as the priorities set forth in the legislation. Let me provide some examples of how our ongoing projects reflect these national priorities.

Unemployment is one of the most serious problems facing our Nation. While many publicly supported education and training programs have been developed to address this problem, these is an increasing interest in involving the private sector in further education and training programs to reduce unemployment rates. At our request, and under this program, the National Academy of Sciences, and their National Research Council, has established a committee on vocational education and economic development in depressed urban and rural areas.

This committee, composed of 14 prominent business, industry, and education leaders, is studying collaboration among vocational education, business and industry, labor, and community-based organizations. The study includes an analysis of youth unemployment in inner cities as well as depressed rural areas. This committee will report its conclusions and recommend steps that can be taken in vocational education to enhance job opportunities for persons in depressed areas by the spring of 1983.

In another ongoing study, funded in fiscal year 1979, the American Institutes for Research is developing vocational competency measures for 17 vocational skill areas. The 17 test packages have been validated by over 1,500 employers, and some 600 employers and 100 military units have agreed to administer the test material.

A third study, which is the last in a series of three projects in vocational guidance, concerns collaboration with the private sector at the community level. Well over 1,000 people have been trained with over 40 competency-based training modules in this field; 55 local teams have implemented improved guidance activities.

The final example I will cite today, Mr. Chairman, is a project by Baptist College at Charleston, S.C., to develop a paraprofessional, rurally oriented home family health training program. Physical, mental, and social needs of members of rural communities have been identified, and materials are being developed which focus on these needs.

As you requested, a list of projects funded from fiscal year 1978 to fiscal year 1982 is attached as an addendum to this statement.

Another activity funded under programs of national significance is the curriculum coordination centers. The need for a network for curriculum coordination was identified by the old U.S. Office of Education in the early 1970's. Studies showed that the curriculum development and dissemination efforts in vocational education were fragmented and duplicative.

As associate commissioner of the, then, Bureau of Adult Vocational and Technical Education, I awarded grants through a competitive process to seven State curriculum laboratories in 1972 and 1973. This was the beginning of the National Network for Curriculum Coordination in vocational and technical education.

Today, the network consists of six curriculum coordination centers, 57 State liaison representatives, and the National Directors Council. A listing of these centers, their directors and locations is attached as an addendum.

The national network provides a variety of curriculum-related services to clients at the Federal, State, and local levels. In 1981, States reported an estimated savings of $4.3 million through this network. This was done by identifying and sharing materials. More than 578 curriculum products were adopted, or adapted for use. And I would like to repeat: $4.3 million was saved through this process.

I am also providing an addendum to my testimony to give detailed impact statistics of the centers for 1981, so that you, Mr. Chairman, and your committee, can see the results of this investment in curriculum development and coordination.

Another important activity is the National Center for Research in Vocational Education. And I am pleased to be sharing this platform here with Dr. Robert Taylor. The national center at the Ohio State University, since its beginning, has had strong professional and knowledgeable leadership. They have assembled a critical mass of highly skilled interdisciplinary talent who have worked very hard through the years to provide research that is needed in vocational education.

The center is organized around the functions of applied research and development, leadership, dissemination and utilization, information planning and policy development, clearinghouse services, and evaluation. To reflect the full intent of the legislation, the center has four programmatic themes, comprehensive planning, special populations, sex fairness, and evaluation.

Because a major center mission is applied research, its stress product dissemination. To date the center has distributed, under the Office of Vocational and Adult Education contract, over 45,000 copies of products to targeted audiences. Over 140,983 copies of its product have been purchased since 1978 by individuals and organizations on a cost-recovery basis.

Another major activity of the center is its role as a clearinghouse in which it acquires, abstracts, and indexes a broad range of research and development projects in vocational education. To date, over 11,953 projects are included in the clearinghouse inventory. As a part of the clearinghouse function, the center maintains a close liaison with the Department of Defense to determine which military courses are suitable for adaption to civilian vocational and technical training. Through this liaison, the clearinghouse has developed a computer accessed bank of 150 military course titles. This selection was made after screening 1,500 military course titles.

Leadership development is also a legislatively mandated function of the center. Under the institute program of the center's national academy, more than 8,000 people have participated to date in over 230 workshops, seminars and conferences.

I should point out, Mr. Chairman, that the direct costs of these workshops and conferences are covered by fee by the participants themselves on a cost recovery basis.

The following are major findings from a midcontract evaluation of the center. I will just quickly share with you some quotations, Mr. Chairman, from an independent, private contractor, at the middle of the third year of the contract:

> The quality of the Center's products is high; the extensive field involvement in the development of products contributes significantly to the relevancy of the products developed; the product development process is systematic, efficient and productive; product impact and usefulness is good; the staff appears highly qualified, and to bring diverse areas of expertise to the Center.

In addition to this evaluation, the Department's Office of Planning, Budget and Evaluation has contracted with Technassociates, Inc., for an evaluation of the products developed by the center. The contractor has brought together a panel of distinguished social scientists, education administrators, and business and labor leaders to study some 350 of the center's publications. The results of this evaluation should be available this fall.

The 1976 amendments to the Vocational Education Act authorized the establishment of a Coordinating Committee on Research in Vocational Education, chaired by my colleague, Dr. Howard Hjelm.

The committee is concerned with program improvement activities in vocational education, career education, and education and work funded by the Department of Education. The National Institute of Education, the Fund for the Improvement of Postsecondary Education, the Office of Vocational and Adult Education, the Office of Special Education and Rehabilitation Services, and the Office of Career Education are represented on the committee.

The purpose of the committee is to coordinate research efforts, and thereby prevent duplication; to establish national priorities;

and to develop a project management information system for the represented programs.

Now, I would like to briefly discuss legislative recommendations and future priorities for national programs.

As you are aware, Mr. Chairman, on April 1 the Department of Education submitted to the Congress a proposal entitled, "The Vocational and Adult Education Consolidation Act of 1982." Senator Orrin Hatch, Republican from Utah, introduced his own consolidation bill, S. 2325, the preceding day. Except for minor differences, the bills are identical, and the administration enthusiastically supports and endorses Senator Hatch's bill. Title III of the Hatch bill authorizes the national discretionary programs that have been supported in the past, while consolidating them under a single authority and giving them a new focus on economic development. The Secretary would be authorized to reserve up to 10 percent of the total appropriation to fund this authority.

In contrast to existing legislation, the Secretary would have broad discretionary authority in managing these national programs, as they are allowable rather than mandatory, and are funded from a single reserve rather than from separate authorities.

As I mentioned earlier, economic development would be a primary focus of the national discretionary programs. The proposal would permit the support of projects or activities for such problems and priorities as the following:

One, national critical shortages of skilled manpower; two, defense preparedness skill shortages—I should mention at this time, Mr. Chairman, that a task force within our office is working on that very critical need, defense skilled work force shortages. And later this fall, the Department of Education and Department of Defense and the American Vocational Association will sponsor a national invitational conference to explore together the defense preparedness skill shortages.

Three, skilled work force training programs for rapidly changing occupations or occupations necessary for economic development; four, collaborative programs that combine the resources of business, industry, labor, education, finance, and agriculture.

And finally, five, entrepreneurship education, to improve and promote entrepreneurship education to help young people and adults understand the opportunities in business ownership and self-employment.

In addition, authority for the programs and activities now being supported under the existing provisions for Indians, for bilingual vocational training, and the National Occupational Information Committee could be continued.

In summary, Mr. Chairman, I would point out that it is difficult within these few minutes to adequately convey the full extent and impact of the programs that have been carried out under programs of national significance since 1977.

At your request, I would be pleased to provide you with descriptions of any of the products or activities in which you might have a special interest.

Mr. Chairman, I would like to thank you for this opportunity to meet with you and this subcommittee to report on the status of and our recommendations regarding research and improvement activities for vocational education.

I will be very pleased to answer any questions that you or other subcommittee members may have at this time.

Thank you very much, Mr. Chairman.

[Material submitted by Robert Worthington follows:]

Prepared Statement of Robert M. Worthington, Assistant Secretary of Vocational and Adult Education, U.S. Department of Education

Mr. Chairman and members of the subcommittee, I am pleased to be here today to discuss some of the programs of vocational education research and program improvement authorized by the Education Amendments of 1976. First, I will provide a broad overview of all the programs funded under Programs of National Significance, and then I will report separately on the programs specifically requested by the Subcommittee. Additionally, I will outline the Department's legislative proposal for national discretionary programs and discuss the priorities contained in the proposal.

PROGRAMS OF NATIONAL SIGNIFICANCE

Six major activities are supported under the Programs of National Significance authority. These include: (1) National discretionary projects, (2) the National Center for Research in Vocational Education, (3) six Curriculum Coordination Centers, (4) the Leadership Development Fellowship Program, (5) the Teacher Certification Fellowship Program, and (6) the National Occupational Information Coordinating Committee (NOICC). At the Subcommittee's request, the Leadership Development Program, the Teacher Certification Fellowship Program, and the National Occupational Information Coordinating Committee will not be discussed in this statement because they have been covered in past hearings or will be covered in future hearings.

From fiscal year 1977 through fiscal year 1982, approximately $92.2 million has been appropriated for Programs of National Significance, ranging from a high of $28.7 million in fiscal year 1978 to a low of $7.5 million in fiscal year 1982. These figures include those funds appropriated under the Smith-Hughes Act which are used by the Programs of National Significance. Attached to my testimony is a table showing the amount of funds allocated to each of the six activities by program year. Of the total $84.8 million allocated for these programs during the first 5 years, approximately 36 percent ($30.68 million) has been spent on national discretionary projects, approximately 30 percent ($25.3 million) has been used to support the National Center, and almost 22 percent ($18.26 million) has been allocated to NOICC.

The Programs of National Significance support the functions of applied studies, curriculum development, demonstration, dissemination, and training. Through these activities a nation-wide program improvement network has been established. In addition to the Federal activities, this network includes the 57 State and Outlying Area Research Coordinating Units, the State Liaison representatives who work with the State Occupational Specialists and the Curriculum Coordination Centers, the State personnel development coordinators, and the thirty-seven State curriculum laboratories. Through this network, program improvement services are provided to local vocational education programs, and to post-secondary and adult technical training programs.

Per your request, a brief description of programs and activities undertaken by the States using Federal funds for Program Improvement and Supportive Services is attached as an addendum to this statement.

PROJECTS OF NATIONAL SIGNIFICANCE

Federally contracted projects of national significance provide a basis for leadership needed to improve the quality of vocational education programs. They focus on areas which individual States would have difficulty addressing or which would be duplicated across States. These projects have produced information for decisionmaking and policy concerning national problems, and have also developed materials for changing and emerging occupational areas. The methods, practices, strategies, and projects are specifically designed to improve the quality of instruction and administration needed to prepare students to enter the job market or proceed to the next educational level required before job entry. Each project has a dissemination plan which assures that vocational educators are kept informed of the progress and the outcomes of the projects.

The applied research projects focus on national problems and issues consistent with the priorities established by the Secretary and the Assistant Secretary of Vocational and Adult Education, as well as the priorities set forth in the legislation. Let me provide some examples of how our ongoing projects reflect these national priorities.

Unemployment is one of the most serious problems facing our nation. While many publicly supported education and training programs have been developed to address this problem, there is increasing interest in involving the private sector in further education and training efforts to reduce unemployment rates. At our request, the National Academy of Sciences/National Research Council has established a Committee on Vocational Education and Economic Development in Depressed Areas. The Committee, composed of 14 prominent business, industry, and education leaders, is studying collaboration among vocational educators and business, industry, and non-profit community-based organizations. Committee members are addressing some longstanding issues in vocational education and employment training as well as issues which arise as the Federal government encourages involvement of the private sector in economically depressed areas. The study also includes analysis of youth unemployment in inner cities and depressed rural areas. The Committee will report its conclusions and recommend steps that can be taken in vocational education to enhance job opportunities for people in depressed areas by the spring of 1983.

In another ongoing study, the American Institutes for Research is developing vocational competency measures for 17 vocational skill areas. The 17 test packages have been validated by over 1,550 employers. Some 600 employers and 100 military units have agreed to administer the test material. The tests, to be used by educators in secondary and post-secondary schools, will inform students about their progress in acquiring specific competencies. Employers will find the tests helpful for selecting new employees and for assessing training needs of present employees.

A third study, which is the last in a series of three projects in vocational guidance, concerns collaboration with the private sector at the community level. The four structural elements in the series include development of competency-based training materials for teams of diverse people; training of team members at the national, regional, and local levels; planning and implementation of local guidance teams, and systematic evaluation of the impact of the teams. Well over 1,000 people have been trained with over 40 competency-based training modules; 55 local teams have implemented improved guidance team activities.

The final example I will cite is a project by Baptist College at Charleston, South Carolina to develop a paraprofessional, rurally-oriented home-family health training program. Physical, mental, and social needs of members of rural communities have been identified, and materials are being developed which focus on the identified needs. Students in the 2-year program receive training using the materials and will also be offered preceptorships as a complement to the formal training.

Per your request, a list of projects funded from fiscal year 1978 to fiscal year 1982 is attached as an addendum to this Statement.

CURRICULUM COORDINATION CENTERS

Another activity funded under Programs of National Significance is the Curriculum Coordination Centers. The need for a network for curriculum coordination was recognized by the U.S. Office of Education in the early 1970's. Studies showed that curriculum development and dissemination efforts were fragmented and duplicative.

As Associate Commissioner of the, then, Bureau of Adult Vocational and Technical Education, I awarded grants through a competitive process to seven State curriculum laboratories in 1972 and 1973. This was the beginning of the National Network for Curriculum Coordination.

Today, the network consists of six curriculum coordination centers, 57 State Liaison Representatives, and the National Directors Council. A listing of the Centers, their directors and locations is attached as an addendum.

The National Network provides a variety of curriculum related services to clients at the Federal, State, and local levels. In 1981, States reported an estimated savings of $4.3 million in development costs. Network services include technical assistance, consultation, inservice training workshops, acquisition and dissemination, curriculum searches, curriculum adaptations, library loans, field-test site identification, and coordinated information-sharing. The Network does not develop curriculum but assists States in adopting or adating existing materials, depending on their needs. The strength of this Network is its regional focus, which extends all the way to the local users. The 57 State Liaison Representatives are the primary resources for information shared through the Network. With one telephone call, a client can access the services of the entire network. Many States, with limited curriculum development resources, have adapted Network identified materials from other States, a procedure that has been increasingly beneficial, especially to smaller and sparsely populated States.

Network clients include public and private school teachers, administrators, guidance counselors, curriculum developers, dissemination specialists, occupational specialists, librarians, public and private organizations, and job placement officers. An additional addendum contains detailed impact statistics of the Centers for 1981. I will highlight only a few of these accomplishments.

Dollars saved through adaptation of materials ranged from $252,000 by the Northwest Network to $1.38 million by the East Central Network. As a whole, the Network disseminated over 140,000 items, reaching more than 126,000 clients.

Though it has grown and changed since its inception, the Network, as it celebrates its tenth anniversary, retains the same basic goal: to contribute to excellence through coordinated curriculum management.

NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION

The Center is organized around the functions of applied research and development, leadership, dissemination and utilization, information planning and policy development, clearinghouse services, and evaluation. To reflect the full intent of the legislation, the Center has selected the four programmatic themes of comprehensive planning, special populations, sex fairness, and evaluation.

Because a major Center mission is applied research, it stresses product dissemination. To date, the Center has distributed, under the OVAE contract, over 43,000 copies of products to targeted audiences. Over 62,700 copies of its products have been purchased since 1978 by individuals and organizations on a cost-recovery basis.

In terms of materials developed, the Center has produced 630 products since its establishment. Let me describe briefly some of these products that are most in demand:

Performance-Based Teacher Education Modules were developed. The modules require teachers to demonstrate essential teaching tasks in an actual teaching situation. These materials were found to be of great use in teacher-training institutions. In the 990 educational agencies which have purchased these materials, it was found that these modules were extremely useful in upgrading skills in newly-employed teachers. Use of the modules has also helped to shorten the time required to certify vocational teachers.

Individualized Education Programs: A Handbook for Vocational Educators provides a brief overview of Individualized Education Program (IEP) requirements and procedures, and describes the role vocational educators can play in formulating and implementing IEP's. More than 2,200 copies have been sold.

Some Key Outcomes of Vocational Education discusses issues related to the validation of program outcomes and operational procedures for conducting outcome studies. More than 420 copies have been purchased.

Specifications of Longitudinal Studies presents an overview of the major issues and problems regarding the use of longitudinal studies for evaluation of vocational education. More than 420 copies have been sold.

Another major activity of the Center is its role as a clearinghouse in which it acquires, abstracts, and indexes a broad range of research and development projects in vocational education. To date over 1,700 projects are included in the clearinghouse inventory. As a part of the clearinghouse function, the Center maintains a close liaison with the Department of Defense to determine which military courses are suitable for adaptation to civilian vocational and technical traning. Though this liaison the clearinghouse has developed a computer-accessed band of 1,400 military course titles through this liaison.

Leadership Development is also a legislatively mandated function for the Center. Under the Institute Program of the Center's National Academy, 8,162 persons have participated to date in 234 workshops, seminars, and conferences. These Institute activities cover a variety of topics including comprehensive planning, special needs populations, and evaluation and policy. In addition, the Center operates a Resident Program and an Advanced Study Center in which 164 vocational leaders from across the Nation have participated since 1978.

The following are the major findings from the mid-contract evaluation of the Center by the Office of Vocational and Adult Education:

"The quality of the Center's products is high.

"Extensive field involvement in the development of products contributes significantly to the relevancy of the products developed.

"The product development process is systematic, efficient, and productive.

"Product impact and usefulness is good.

"The staff appears to be highly qualified, and to bring diverse areas of expertise to the Center."

In addition, the Department has contracted with Technassociates, Inc. for an evaluation of the products developed by the Center. The contractor has brought together a panel of distinguished social scientists, education administrators, and business and labor leaders to study some 350 of the centers publications. The results of this evaluation should be available this fall.

COORDINATING COMMITTEE ON RESEARCH IN VOCATIONAL EDUCATION

The 1976 Amendments to the Vocational Education Act authorized the establishment of a Coordinating Committee on Research in Vocational Education. The Committee is concerned with program improvement activities in vocational education, career education, and education and work funded by the Department of Education. The National Institute of Education, the Fund for the Improvement of Postsecondary Education, the Office of Vocational and Adult Education, the Office of Special Education and Rehabilitation Services, and the Office of Career Education are represented on the Committee.

The purpose of the Committee is to: (1) coordinate research efforts, and thereby act to prevent duplication, (2) establish national priorities, and (3) develop a project management information system for the represented programs. Its activities have included an extensive sharing of program information and review of program priorities at bi-monthly meetings, and invitational seminars aimed at national priorities and policy concerns. In addition, the Coordinating Committee issues an annual annotated and indexed bibliography of current program improvement projects in vocational education, career education, and education and work funded by the programs represented on the Committee. This bibliography is entitled "Projects in Progress."

LEGISLATIVE RECOMMENDATIONS AND FUTURE PRIORITIES FOR NATIONAL PROGRAMS

As you are aware, on April 1 the Department of Education submitted to Congress a proposal entitled "The Vocational and Adult Education Consolidation Act of 1982." Senator Orrin Hatch (R-UT) introduced his own consolidation bill (S. 2325) the preceding day. Except for minor differences, the Bills are identical, and the Administration enthusiastically supports and endorses Senator Hatch's bill. Title III of the Hatch Bill authorizes the national discretionary programs that have been supported in the past, while consolidating them under a single authority and giving them a new focus on economic development. The secretary would be authorized to reserve up to 10 percent of the total appropriation to fund this authority.

In contrast to existing legislation, the Secretary would have broad discretionary authority in managing these national programs, as they are allowable rather than mandatory and are funded from a single reserve rather than from separate authorities.

As I mentioned earlier, economic development would be a primary focus of the National discretionary programs. The proposal would permit the support of projects or activities for such problems and priorities as: national critical shortages of skilled manpower; defense preparedness skill shortages; skilled workforce training programs for rapidly changing occupations or occupations necessary for economic development; collaborative programs that combine the resources of business, industry, labor, education, finance, and agriculture; and entrepreneurship education.

In addition, authority for the programs and activities now being supported under the existing provisions for Indians, bilingual vocational training, and the National Occupational Information Coordinating Committee would be continued.

In summary, I would point out that it is difficult within these few minutes to adequately convey the full extent and impact of the programs and activities that have been carried out under Programs of National Significance since 1977.

At your request, I would be pleased to provide you with descriptions of any of the products or activities in which you might have an interest.

Mr. Chairman, I would like to thank you for this opportunity to meet with you and this Subcommittee to report on the status of and our recommendations regarding research and program improvement for vocational education.

I will be pleased to answer any questions that you or other Subcommittee members may have at this time.

TABLE 1.—UTILIZATION OF FUNDS FROM PROGRAMS OF NATIONAL SIGNIFICANCE, BY PROGRAM YEAR

Activity	Fiscal year—					Total	Percent
	1978	1979	1980	1981	1982		
NCRVE	$4,516,415	$5,064,497	$5,606,066	$5,505,000	$4,633,895	$25,325,873	29.9
CCC's	395,000	632,822	364,096	599,000	609,449	2,600,367	3.1
Projects	13,960,662	14,739,352	373,085	1,258,540	348,629	30,680,268	36.2
Leadership development	1,760,000	1,764,000	1,002,293			4,526,293	5.3
Teacher certification	1,850,000	1,491,310				3,341,310	3.9
NOICC	5,000,000	5,000,000	3,012,000	3,000,000	2,243,100	18,225,100	21.6
Total	27,482,077	28,691,981	10,357,540	10,362,540	7,835,073	84,729,211	100.0

Source: U.S. Department of Education, Office of Vocational and Adult Education.

LIST OF CURRENT RESEARCH
PROJECTS - 1978-1981

U.S. Department of Education
Office of Vocational and Adult Education
Division of National Vocational Programs
Washington, D.C. 20202

December 1981

Contract No.	Project Director Contractor's Name, Address and Phone	Title of Project	Purpose of Project	Project Period	Funding
300-78-0562	Jack Hamilton American Institutes for Research P.O. Box 1113 Palo Alto, CA 94303 (415) 493-3550	Field Testing Vocational Education Curriculum Specialist Materials	To determine effectiveness of learning through use of, to identify and develop modules and to promote and implement utilization of vocational education curriculum specialist materials.	10/1/78 - 9/30/81	$183,946.00
300-78-0590	Dr. Judith Siegel CRC Education and Human Development, Inc. 26 Brighton Street Belmont, MA 02176 (617) 489-3150	The Individual Education Plan (IEP) for Handicapped Students in Vocational Education	To provide guidelines and training for a team approach to the development and use of the IEP with vocational students.	9/30/78 - 9/30/81	$507,000.00
300-78-0594	Ruth B. Ekstrom Project Director Educational Testing Service Princeton, N.J. 08541 (609) 921-9000 Ext. 235	Credentialing Women's Life Experiences	To develop and test a system for documenting women's life experiences and prepare a report on "Making Experience Count" in each of the following: In Vocational Education, and In Sex Equity Programs.	10/1/78 - 12/15/81	$403,536.00

Contract No.	Project Director Contractor's Name, Address and Phone	Title of Project	Purpose of Project	Project Period	Funding
300-78-0551	Daniel Hull Project Director Technical Education Research Center, SW 610 Lake Air Drive Waco, Texas 76710 (817) 772-8756	Curriculum for Energy Use and Conservation Technicians	To develop, demonstrate and test in schools, 16 courses (190 Teacher-Learner Modules) and an instructor's guide to prepare energy use and conservation technicians	10/1/78 - 11/30/81	$177,128 - 1978 $472,862 - 1979 $ 27,682 - 1980
300-78-0563	Dr. Barbara Mink Project Director Organization and Human Resources Development Associates Inc. 1208 Somerset Avenue Austin, Texas 78753 (512) 451-3553	The Conversion of Department of Defense Dental Assistant and Physician's Assistant Materials to Competency Based Modularized Curriculum Materials.	To provide modularized competency based curriculum materials for programs to prepare dental assistants; and to prepare physician's assistants.	10/1/78 - 9/30/80	$231,990.00
300-78-0565	William Dugger Virginia Polytechnic Institute and State University 368 Smythe Hall Blacksburg, Virginia 24061 (703) 961-5013	Standards for Industrial Arts Education Programs	To establish a data base from which qualitative standards can be developed for improving the quality of industrial arts programs.	10/1/78 11/30/81	$608,656.00

Contract No.	Project Director Contractor's Name, Address and Phone	Title of Project	Purpose of Project	Project Period	Funding
300-79-0535	Ms. Carol Kaplan American Institutes for Research P.O. Box 1113 1791 Arastradero Road Palo Alto, California 94302 (415) 493-3550	Development of Entrepreneurship Training Components for Vocational Education	To create entrepreneurship training components for use in vocational instructional programs at the secondary level. Principal products include a Handbook, a Resource Guide, and 36 business-specific entrepreneurship instructional modules for use in the 7 major vocational disciplines at the secondary level.	10/1/79 - 11/30/81	$425,778.00
300-79-0735	Dr. A. Chalupsky American Institutes for Research P.O. Box 1113 Palo Alto, California 94302 (415) 493-3550	Development of Competency Measures for Vocational Skill Areas	To develop nationally validated competency tests.	10/1/79 - 9/30/82	$1,698,163.00
300-79-0691	Dr. Gerald Gold National Institute for Work and Learning 1211 Connecticut Avenue Washington, D.C. (202)887-6800	Industry-Education-Labor (IEL) Collaboration	To provide a data base on IEL collaboration for policy considerations.	9/28/79 - 8/31/81	$236,000.00

Contract No.	Project Director Contractor's Name, Address and Phone	Title of Project	Purpose of Project	Project Period	Funding
300-79-0436	Lawrence Zane University of Hawaii at Manoa Honolulu, HI 96822 (808) 948-7834	Vocational Education Personnel Development in the Pacific Basin	To assist vocational educators of the Pacific Basin Territories in determining and meeting their vocational education personnel needs.	9/30/79 - 12/31/81	$238,830.00
300-79-0778	Ms. Vivian Guilfoy Education Development Center 55 Chapel Street Newton, MA 02160 (617) 969-7100	Identification and Development of Procedures for Facilitating Access to Employment through Vocational Education for Displaced Homemakers	To encourage displaced homemakers to enroll in vocational education programs, three Public Service Announcements (PSA's) were produced and shown on network T.V. A counselor's manual and resource guide were developed for SEA and LEA personnel.	10/1/79 - 12/31/81	$497,817.00
300-79-0659	Ms. Jo Shuchat Technical Education Research Centers, Inc. 8 Eliot Street Cambridge, MA 02138 (617) 547-3890	Development of an Outreach Program to Attract Women into Male-Intensive Vocational Education Programs	To develop an outreach program to assist providers of vocational training in encouraging adult women to enter occupations that have traditionally attracted only men. Principal products are a handbook (Nuts and Bolts of NTO) for outreach program implementers and a guide (Time for a Change) for women interested in training for jobs in male-intensive fields.	10/1/79 - 12/31/81	FY 79 - $512,197. FY 81 - $ 9,493.

Contract No.	Project Director Contractor's Name, Address and Phone	Title of Project	Purpose of Project	Project Period	Funding
300-79-0102	Dr. Joseph Kelly Director Northeast Curriculum Coordination Center Bureau of Occupational and Career Research Development Division of Vocational Education 225 West State Street Trenton, NJ 08625 (609) 292-5850	Northeast Curriculum Coordination Center	To increase the availability of curriculum information and materials; promote the adoption and adaptation of curriculum materials; minimize duplication in vocational education curriculum development and improve the quality of vocational education curriculum and diffusion services. States served: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Puerto Rico, Rhode Island, Vermont, Virgin Islands.	3/1/79 - 12/31/81	FY 81-$87,538.00
300-79-0744	Dr. James Dunn Cornell Institute for Occupational Education Cornell University Stone Hall Ithaca, NY 14853 (607) 256-6515	Basic Skill Development through Vocational Education	This project is developing, field testing, and promoting teacher guides and a resource handbook which provide information about basic skills curricula, materials, and instructional techniques.	10/1/79 - 5/31/82	$348,140.00

Contract No.	Project Director Contractor's Name, Address and Phone	Title of Project	Purpose of Project	Project Period	Funding
300-79-0796	Drs. Douglas Katz and Joseph Herden Conserva, Inc. Suite 110-112 401 Oberlin Road Raleigh, NC 27605 (919) 832-7717	Procedures for Utilizing Volunteers to Improve Vocational Education in Urban Areas	Project purpose is to generate greater involvement of volunteers in urban vocational education programs. Principal products are a formal state-of-the-art review of volunteerism in vocational education, a handbook (Vocational Volunteer Resource Handbook), and a 16 mm orientation film.	10/1/79 - 9/30/82	$683,548.00
300-79-0812	Harry N. Drier Ohio State University National Center for Research in Vocational Education 1960 Kenny Road Columbus, OH 43210 (614) 486-3655	Guidance Team Training Program	To help improve career guidance programs in local communities.	9/28/79 - 1/31/82 (Pending extension to 3/31/82)	$498,000.00
300-79-0538	Wilma Griffin University of Texas at Austin Austin, TX 78712 (512) 471-4287	Standards for Vocational Home Economics Education	To develop qualitative teacher and program standards which will assist in the improvement of vocational home economics instructional programs.	9/26/79-9/30/81	$392,293.00

Contract No.	Project Director Contractor's Name, Address and Phone	Title of Project	Purpose of Project	Project Period	Funding
300-79-0709	Mr. Daniel Hull Technical Education Research Center - S.W. 601 Lake Air Drive, Suite C Waco, Texas 76710 (817) 772-8756	Development of Safety and Health Instructional Materials	To develop 50 instructional modules that teach safety and health practices in the seven major vocational education program areas. These are to be used as supplementary materials and infused into existing programs.	10/1/79 - 1/31/82	$327,441.38
300-79-0762	Dr. Krishan Paul American Vocational Association 220 North 14th Street Arlington, VA 22201 (703) 522-6121	Identification and Dissemination of Model Programs for the Involvement of Vocational Education in Economic Development	The overall purpose of the study is to promote and expand the role of vocational education in economic development. The most important outcome of the project will be the advancement of a process--the process of coordination among agencies in the planning and operation of education for work.	10/1/79 - 3/31/82	$516,258.00

Contract No.	Project Director Contractor's Name, Address and Phone	Title of Project	Purpose of Project	Project Period	Funding
300-79-0104	Mr. William Daniels Director Northwestern Curriculum Coordination Center Commission for Vocational Education Building 17 Airdustrial Park Olympia, WA 98504 (206) 753-0879	Northwestern Curriculum Coordination Center	To increase the availability of curriculum information and materials; promote the adoption and adaptation of curriculum materials; minimize duplication in vocational education curriculum development and improve the quality of vocational education curriculum and diffusion services. States serves: Alaska, Colorado, Idaho, Montana, North Dakota, Oregon, South Dakota, Utah, Washington, Wyoming.	3/1/79 - 12/31/81	FY 81-$138,326.0
300-79-0671	Lloyd Tindall University of Wisconsin-Madison 964 Educational Sciences Building Madison, WI 53706 (608) 263-3415	Vocational Education Personnel Development Models for Linking Agencies Serving the Handicapped	To provide interagency linkages to ensure accessibility and delivery of supportive services in order that the handicapped can benefit from vocational education.	10/1/79 - 12/31/81	$359,159.00

Contract No.	Project Director Contractor's Name, Address and Phone	Title of Project	Purpose of Project	Project Period	Funding
300-80-0956	Rachel Rassen Project Director American Institutes for Research P.O. Box 1113 1791 Arastradero Road Palo Alto, CA 94302 (415) 493-3550	Energy Conservation Vocational Instructional Materials	To develop 24 learning modules and three learning activities packages for infusion into ongoing programs in the seven occupational fields of vocational and technical education.	10/1/80 - 3/31/82	$346,543.00
300-80-0553	Dr. Matilda Butler Far West Laboratory for Educational Research and Development 1855 Folsum Street San Francisco, CA 94103 (415) 565-3088	Development of Support Service System for Sex Equity Services in Vocational Education	Via one national and four regional conferences, and through the development of four different deliverables, a support service system will be created to assist Sex Equity Coordinators in mainstreaming Sex Equity (Sex Fair) practices into vocational education.	6/15/80 - 2/14/82	$446,667.00
300-80-0786	Mr. Richard Ungerer The National Institute for Work and Learning 1211 Connecticut Avenue SW Washington, D.C. 20086 (202) 887-68[illegible]3	Linking Education and Economic Development in Rural America	To hold a national conference in DC area with the purpose of discussing issues relating to education and rural development. A Goals Statement, State of the Art report, and Commissioned Position papers resulted from the conferences.	10/1/80 - 9/30/81	$ 55,478.00

Contract No.	Project Director Contractor's Name, Address and Phone	Title of Project	Purpose of Project	Project Period	Funding
300-80-0214	Dr. Lawrance F. H. Zane Director Western Curriculum Coordination Center College of Education University of Hawaii Honolulu, HI 96822 (808) 948-7834	Western Curriculum Coordination Center	To increase the availability of curriculum information and materials; promote the adoption and adaptation of curriculum materials; minimize duplication in vocational education curriculum development and improve the quality of vocational education curriculum and diffusion services. States served: American Samoa, Arizona, California, Guam, Hawaii, Nevada, Trust Territory, Government of Northern Marianas.	3/1/80 - 12/31/82	FY 81-$97,046.0
300-80-0088	Mr. Frederic May Consumer Dynamics, Inc. 11300 Rockville Pike Rockville, MD 20852 (201) 881-5870	Conversion of Armed Services Environmental Health Specialist Instructional Materials for Use in Vocational Education	To develop 25 competency-based instructional modules in 5 specific areas of environmental health. These are supplementary materials which can be infused into existing technical programs.	1/1/80 - 8/31/81	$237,367.00

Contract No.	Project Director Contractor's Name, Address and Phone	Title of Project	Purpose of Project	Project Period	Funding
300-80-0213	Dr. Roy S. Hinrich Director Southeast Curriculum Coordination Center Mississippi State University Research and Curriculum Unit Drawer DX Mississippi State, MS 39762 (601) 325-2510	Southeast Curriculum Coordination Center	To increase the availability of curriculum information and materials; promote the adoption and adaptation of curriculum materials; minimize duplication in vocational education curriculum development and improve the quality of vocational education curriculum and diffusion services. States served: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee.	3/1/80 - 12/3/82	FY 81 - $68,708.
300-80-0937	Conserva, Inc. 401 Oberlin Road Suite 110-112 Raleigh, NC 27605 Project Director: Eric Rice 1735 I Street, NW Suite 805 Washington, DC 20006 (202) 223-5677	Improvement of Related Instruction in Apprenticeship Programs.	To develop 10 modules and related background tapes for apprentice instructors and 10 learning modules for related instruction of students in apprenticeship programs.	10/1/80 - 9/30/82	$323,551.00
300-80-0865	Bill Lovelace Educational Innovators, Inc. P.O. Box 2736 Richardson, TX 75080 (214) 235-0153	Vocational Education Personnel Development Needs for Working with the Handicapped	To establish a data base to identify specific training needs of vocational education instructional personnel working with the handicapped.	10/1/80 - 9/30/81	$130,133.40

Contract No.	Project Director Contractor's Name, Address and Phone	Title of Project	Purpose of Project	Project Period	Funding
300-80-0747	Dr. Diane Simison Rehab Group, Inc. 5827 Columbia Pike Falls Church, VA 22041 (703) 820-4900	Design of a National Cost-Benefit Study of Vocational Education at the Secondary, Post-secondary, and Adult Levels	(1) To evaluate previous educational cost-benefit studies and develop a State of the Art Report (2) to design the specifications for a comprehensive C-B study of vocational education and (3) to determine the feasibility of undertaking such a study.	9/15/80 - 10/12/81	$102.233.00
300-81-0306	Dr. Susan Sherman National Academy of Sciences 2101 Constitution Ave. Washington, DC 20418 (202) 334-3026	The Contribution of Business and Industry to the Vocational Education of Inner City Youths and Adults	To analyze what, and in which manner, business and industry can contribute to vocational education in economically depressed areas.	10/1/82 - 3/30/83	$200,000.00
300-81-0282	Dr. Barbara F. Reskin National Academy of Sciences Room JH 820 2101 Constitution Ave. Washington, DC 20418 (202) 334-3590	Establishment of a Committee on Women's Employment and Related Social Issues	To convene a committee of recognized scholars in various disciplines with the purpose of investigating issues centering on job segregation by sex. Various position papers will be developed and a national workshop on the subject will be held.	9/1/81 - 11/30/82	$ 75,000.00 ($50,000 ED) (25,000 DOL)

Contract No.	Project Director Contractor's Name, Address and Phone	Title of Project	Purpose of Project	Project Period	Funding
300-81-0256	Ms. Ann Register Georgia State Department of Education Atlanta, GA 30334 (404) 656-2545	Summer Vocational Program for Atlanta Youths	To provide work-related experiences for secondary youths during the summer.	6/22/81 - 10/30/81	$100,000.00
300-81-0241	Mrs. Rebecca Douglass Director East Central Curriculum Coordination Center Sangamon State University Springfield, IL 62708 (217) 786-6375	East Central Curriculum Coordination Center	To increase the availability of curriculum information and materials; promote the adoption and adaptation of curriculum materials; minimize duplication in vocational education curriculum development and improve the quality of vocational education curriculum and diffusion services. States served: Delaware, District of Columbia, Indiana, Illinois, Maryland, Michigan, Minnesota, Ohio, Pennsylvania, Virginia, West Virginia, Wisconsin.	4/27/81 - 12/31/83	FY 81-$118,578.

Contract No.	Project Director Contractor's Name, Address and Phone	Title of Project	Purpose of Project	Project Period	Funding
300-81-0140	Ms. Rebecca Douglas Sangamon State University Division of Academic Affairs Springfield, IL 62708 (217) 786-6375	Secretary's Award for Outstanding Vocational Education Programs - No. 3	To work with Chicago and Philadelphia Regional Offices in selecting three nominees of exemplary vocational education programs from each of those two Regions for submission to the Department of Education.	3/1/81 - 8/31/81	$23,805.00
300-81-0352	Dr. D. Drewes Conserva, Inc. 401 Oberlin Road Suite 112 Raleigh NC 27605 (919) 832-7717	Utilising Vocational Education to Improve Productivity	To describe the relationship between vocational education and productivity and to discuss how to improve productivity through vocational education.	10/1/81 - 9/30/82	$99,002.00
300-81-0419	Dr. James Dunn Cornell Institute of Occupational Education Cornell University Stone Hall Ithaca, NY 14853 (607) 256-6515	State Dissemination Plan for Vocational Education Instructional Materials	A set of notebooks will be developed to help vocational area specialists to identify strategies to improve dissemination, to better use existing resources, and to access federal agencies, publications, and activities.	10/1/81 - 12/31/82	$89,112.00

Contract No.	Project Director Contractor's Name, Address and Phone	Title of Project	Purpose of Project	Project Period	Funding
300-81-0437	Mr. Harry N. Drier Ohio State University National Center for Research in Vocational Education 1960 Kenny Road Columbus, OH 43210 (614) 486-3655	Linking Community-Collaborative Comprehensive Programs of Career Guidance to Youth Education and Employment Initiatives	To help improve career guidance programs on a community-collaborative basis	10/1/81 - 9/30/83	$359,996.00
300-81-0242	Mr. Bob Patton, Director Midwest Curriculum Coordination Center State Department of Vocational and Technical Education 1515 West 6th Avenue Stillwater, OK 74074 (405) 377-2000, Ext. 252	Midwest Curriculum Coordination Center	To increase the availability of curriculum information and materials; promote the adoption and adaptation of curriculum materials; minimize duplication in vocational education curriculum development and improve the quality of vocational education curriculum and diffusion services. States served: Arkansas, Iowa, Kansas, Louisiana, Missouri, Nebraska, New Mexico, Oklahoma, Texas.	4/25/81 - 12/31/83	FY 81 - $69,022.

Contract No.	Project Director Contractor's Name, Address and Phone	Title of Project	Purpose of Project	Project Period	Funding
300-81-0436	Dr. R. David Hodge Project Contact Person Baptist College of Charleston P.O. Box 10087 Charleston, S.C. 29411 (803) 797-4335	To Develop a Paraprofessional Rural Oriented Home-Family Health Training Program	A project to develop and demonstrate a program to prepare a paraprofessional Rural Home-Family Health Care program to prepare technicians who can help states and counties to deliver health care to rural persons living near or below the poverty level; and to prepare competency based instructional materials and a final report which describes the program.	10/1/81 - 9/30/83	$100,000.00
300-78-0032	Dr. Robert Taylor Executive Director National Center for Research in Vocational Education Ohio State University 1960 Kenny Road Columbus, Ohio 43210 (614) 486,3655	The National Center for Research in Vocation Education	The National Center was authorized by the Education Amendment of 1976 to perform the following six functions: 1. Applied Research and Development. This includes studies that the National Center selects, and designated studies which the Office of Vocational and Adult Education selects concerning problems and issues of national significance in vocational education.	2/1/78 - 1/31/83	Estimated funding for 5 years is $20.5 million

Contract No.	Project Director Contractor's Name, Address and Phone	Title of Project	Purpose of Project	Project Period	Funding
300-78-0032 (Continued)			2. Leadership Development. This comprises two units. The first, the National Academy for Vocational Education, includes a short-term in-residence program. The second, an institute program for conducting workshops, conferences, and symposia for State and local vocational education leadership personnel. 3. Dissemination and Utilization. In this function the results of research and development projects in vocational education are disseminated nationally. 4. Planning and Policy Development. This function facilitates national planning in vocational education through an analysis of data related to policy issues. 5. Clearinghouse. Under this function information about State-funded vocational education R&D projects is compiled and disseminated. 6. Evaluation Service. Under this function methods are developed to evaluate programs in vocational education.		

NATIONAL NETWORK FOR CURRICULUM COORDINATION IN VOCATIONAL-TECHNICAL EDUCATION

HAWAII	Dr. Lawrence F. H. Zane, Director Western Curriculum Coordination Center College of Education University of Hawaii 1776 University Ave., Wist 216 Honolulu, Hawaii 96822 (808) 948-7834	American Samoa, Arizona, California, Guam, Hawaii, Nevada, Trust Territory, Government of Northern Marianas
ILLINOIS	Mrs. Rebecca Douglass, Director East Central Curriculum Coordination Center Sangamon State University - E22 Springfield, Illinois 62708 (217) 786-6375	Delaware, District of Columbia, Indiana, Illinois, Maryland, Michigan, Minnesota, Ohio, Pennsylvania, Virginia, West Virginia, Wisconsin
MISSISSIPPI	Dr. Roy S. Hinrichs, Director Southeast Curriculum Coordination Center Mississippi State University Research and Curriculum Unit Drawer DX Mississippi State, Mississippi 39762 (601) 325-2510	Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee
NEW JERSEY	Dr. Joseph Kelly, Director Northeast Curriculum Coordination Center Bureau of Occupational and Career Research Development Division of Vocational Education 225 West State Street Trenton, New Jersey 08625 (609) 292-5850	Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Puerto Rico, Rhode Island, Vermont, Virgin Islands
OKLAHOMA	Mr. Bob Patton, Director Midwest Curriculum Coordination Center State Department of Vocational and Technical Education 1515 West 6th Avenue Stillwater, Oklahoma 74074 (405) 377-2000, Ext. 252	Arkansas, Iowa, Kansas, Louisiana, Missouri, Nebraska, New Mexico, Oklahoma, Texas
WASHINGTON	Mr. William Daniels, Director Northwestern Curriculum Coordination Center Commission for Vocational Education Building 17 Airdustrial Park Olympia, Washington 98504 (206) 753-0879	Alaska, Colorado, Idaho, Montana, North Dakota, Oregon, South Dakota, Utah, Washington, Wyoming

Curriculum Coordination Centers - Impact Statistics for 1981

Curriculum Coordination Centers (CCCs)	Dollars Saved by Network	Diffused Products Adopted/Adapted	Interstate Development Activities Implemented	No. of States with Library Loan Systems for Vocational Materials	No. of SLRs Communicating with RCU, Teacher Eds. and Sex Equity Coord.	No. of SLRs Involved in State Program Improvement Planning	CCC Meetings Involving NCRVE Staff Presentations	NCRVE Requests for Assistance CCC/SLR
Northeast CCC	$ 806,500	118	14	9	10	10	2	25
Southeast CCC	1,080,000	21	8	8	8	8	1	13
East Central CCC	1,384,000	165	25	10	10	11	1	60
Midwest CCC	440,000	113	17	8	9	9	0	9
Northwestern CCC	252,000	24	3	8	10	10	2	23
Western CCC	352,100	137	12	8	8	8	1	71
TOTALS	$4,314,600	578	79	51	55	56	7	201

Curriculum Coordination Centers (CCCs)	Requests for CCC Consultation or Technical Assistance	No. of Technical Assistance Visits	No. of Inservice Training Workshops and Attendees	No. of CCC Awareness Sessions or Displays	No. of Curriculum Searches Conducted	Copies of Regional Newsletters Provided to States	No. of All Items Disseminated	No. of Persons Reached Through Dissemination
Northeast CCC	145	8	15 / 1,375	18	715	10,400	27,347	6,500
Southeast CCC	174	8	160 / 12,170	54	73	4,000	5,200	19,070
East Central CCC	344	2	3 / 4,640	232	110	12,500	30,141	34,781
Midwest CCC	166	8	34 / 3,000	34	33	3,460	9,525	29,235
Northwestern CCC	38	7	3 / 1,200	9	125	1,000	33,000	26,000
Western CCC	707	16	77 / 3,820	61	1,483	15,229	34,973	10,240+
Totals	1,574	49	292 / 26,205	408	2,539	46,589	140,186	126,834+

ADDENDUM TO THE STATEMENT OF ROBERT M. WORTHINGTON, ASSISTANT SECRETARY FOR VOCATIONAL AND ADULT EDUCATION, U.S. DEPARTMENT OF EDUCATION

SUBPART 3—PROGRAM IMPROVEMENT AND SUPPORTIVE SERVICES

Under the Program Improvement and Supportive Services provisions of Part A, Subpart 3, the Secretary is authorized to make grants to the States to assist them in improving their vocational education programs and in providing supportive services for those programs. These grants may be used by the States in accordance with their 5-year and annual program plans for six purposes: (1) Research, (2) exemplary and innovative programs, (3) curriculum development, (4) guidance and counseling, (5) vocational education personnel training, and (6) grants to overcome sex bias.

Twenty percent of the funds appropriated for Subpart 2 (Basic Grants) of the Vocational Education Act is available for these six purposes. Of this twenty percent, twenty percent must be used to support purpose No. 4, guidance and counseling. Both the contract and the grant mode may be used for funding these activities.

Three sections of these provisions are closely related. They are (1) Section 131, which authorizes support of State Research Coordinating Units and a variety of applied research and development activities; (2) Section 132, which authorizes contracts supporting exemplary and innovative programs; (3) Section 133, which authorizes use of contracts for curriculum development projects.

Research (Section 131) that improves the quality of vocational education is an important element in any State's program improvement efforts. Development and testing of curriculum materials, applied research in diverse areas, and experimental, development, and pilot programs were among the activities funded in fiscal year 1981. In a fully-articulated program improvement system, research is the basis upon which the whole system depends. The results of research are used to develop curriculum which is then tested in exemplary and model programs. Preservice and inservice training introduces the new techniques or materials to teachers. Finally, programs are implemented in regular classrooms.

Exemplary and innovative programs (Section 132) are intended to develop high quality vocational education programs, especially for urban centers and rural areas. The programs may also provide effective vocational education for persons with limited English proficiency, correlate vocational education opportunities with current and projected labor market needs, and broaden occupational aspirations and opportunities for youth, with emphasis on those with academic, socio-economic, or other handicaps.

Curriculum Development (Section 133) is the focal point for program improvement activities. To help States best use their limited resources most effectively, many States have formed curriculum development consortia. A dozen States are members of the Vocational Technical Education Consortium of States (V-TECS). The federally-funded Midwest Curriculum Coordination Center, located in Oklahoma, inspired the Mid-America Vocational Curriculum Consortium of 12 States. The Inter-State Distributive Education Curriculum Consortium (IDECC) is supported by 22 State vocational education agencies. The consorium approach to curriculum development and dissemination helps States share in the development of mutually needed curriculum materials for teachers and students.

Table I shows expenditures for program improvement projects, Sections 131, 132, and 133 from fiscal year 1978 to fiscal year 1980.

TABLE 1.—EXPENDITURES FOR PROGRAM IMPROVEMENT PROJECTS, SECTIONS 131, 132, AND 133

Fiscal year	Total	Federal	State/local
1978	$36,429,947	$20,162,239	$16,267,708
1979	43,107,603	24,789,662	15,814,552
1980	48,861,307	30,367,759	18,493,548

Source: Fiscal year 1978, OVAE; fiscal year 1979-80, VEDS.

TABLE 2.—FISCAL YEAR 1981 STATE PROGRAM IMPROVEMENT PROJECTS BY LEGISLATIVE SECTION

Legislative section under subpart 3 Public Law 94-482	Number of projects	Obligated funds
Section 131, research	274	$7,843,592
Section 132, innovative and exemplary	328	7,527,905
Section 133, curriculm development	297	9,203,215
Total	899	24,574,712

Source: NCRVE "Vocational Education Program Improvement," a summary of State-administered projects in fiscal year 1981.

The number of projects the States have funded with their Program Improvement funds are listed in Table 2. Although overall funding was divided among sections approximately equally, the amount obligated for each project varies considerably, with the average funding per project being $27,336. Funding levels ranged from $487 to $466,419. Although these projects were funded at every educational level, over 47 percent of the State Program Improvement funds were obligated at the postsecondary and the combined secondary and postsecondary levels.

TABLE 3.—FISCAL YEAR 1981 PROBLEM AREAS ADDRESSED BY PROJECTS FUNDED BY SECTIONS 131, 132, AND 133

Problem area	Number of projects	Amount of funding	Percentage of funding
Curriculum	311	$8,958,883	36.4
Special needs (handicapped, gifted, and disadvantaged)	111	3,113,505	12.6
Dissemination	43	2,453,809	10.0
Career development	97	2,354,631	9.6
Evaluation	73	1,854,451	7.5
Administration and policy formulation	63	1,542,942	6.3
Basic skills/bilingual education/rural education	35	987,979	4.1
School/community/industry linkage	37	860,836	3.6
Teacher education and personnel development	65	890,698	3.6
Sex equity	19	259,643	1.0
Adult education	10	234,908	.9
Other	35	1,062,427	4.4
Total	899	24,574,712	100.0

Source: NCRVE Report: "Vocational Education Program Improvement: A Summary of State-Administered Projects in Fiscal Year 1981."

As shown in Table 3, a variety of educational problems were addressed through these projects, with over 36 percent of the funds focusing on curriculm development, revision, or management. Curriculum was followed by special needs populations, dissemination, and career development, respectively.

Vocational guidance and counseling (Section 134) provides support for vocational guidance and counseling programs, services, and activities for the purpose of improving the accessibility of vocational education programs. Unlike other sections of Subpart 3, this section requires each State to expend a minimum of twenty percent of the Subpart 3 allocation for these purposes. A State may either allocate the funds under the same formula used for the basic grant, or contract for individual projects. Some States, such as Mississippi and Texas, use a combination of both funding methods. New Jersey and Virginia use the contract method while the State of Washington uses the formula.

VOCATIONAL GUIDANCE EXPENDITURES (SECTION 135, SUBPART 3)

Fiscal year	Total	Federal	Percent	State/local	Percent
1978	$131,074,361	$23,876,500	18.2	$107,197,861	81.8
1979	216,325,517	41,148,266	19.0	175,177,251	81.0
1980	254,032,754	40,675,601	16.0	213,357,153	84.0

Source: Fiscal year 1978, OVAE; Fiscal year 1980, VEDS.

In Kentucky, the vocational guidance funds are allocated to the fourteen vocational regional centers. Ten of the counselors located in the Regions are paid by State funds. Plans for use of the funds are submitted to the regional offices and reviewed at the State level by the RCU Director. Fifteen thousand five hundred postsecondary students and 22,000 secondary students have benefitted from the guidance services in 1981-82, with a focus on disadvantaged and handicapped students.

Vocational Education Personnel Training (Section 135) makes funds available to States for supporting programs or projects designed to improve the qualifications of those serving or preparing to serve in vocational education programs, including teachers, administrators, supervisors, and vocational guidance and counseling personnel. The National Center for Education Statistics, Vocation Data Education System, reported total Federal outlays for preservice and inservice training (section 135) increased 51.1 percent from $9 million in fiscal year 1978 to $13.6 million in fiscal year 1979. Federal outlays in fiscal year 1980 increased again to $23.2 million. In October of 1981 there were only 19 States with full-time personnel development coordinators. In most other States (31 or 54 percent) that function has been assigned to the Research Coordinating Unit or another State administrator.

Although data are not available on the number of personnel trained during a given fiscal year, the potential population includes over 400,000 vocational education teachers, supervisors, administrators, teacher educators, and other support personnel. Specific activities under this section include a wide range of types of training, retraining, and the exchange of vocational education personnel with skilled workers or supervisors in business, industry, and agriculture.

For example, in 1980-81 Pennsylvania conducted 44 technological updating workshops in 33 different instructional programs with additional projects for working with special needs students. Although coordinated by vocational teacher educators at institutions of higher education, the technical content was presented by business and industry experts. In addition, Pennsylvania continued its commitment to competency based vocational teacher education, including occupational competency assessment.

Grants to Assist in Overcoming Sex Bias (Section 136) makes funds available to the States to support activities which show promise of overcoming sex bias and stereotyping in vocational education programs. In fiscal year 1979, 26 States spent $2.17 million, of which $1.89 million were Federal funds. In fiscal year 1980, $2.1 million Federal and $1.8 million State and local funds were spent by 35 States for this purpose. Thirty-five States planned to spend $2.34 million of these Federal funds to overcome sex bias in fiscal year 1981. Projects range from those providing an awareness of career opportunities, to publishing a "Directory of People in Nontraditional Jobs," to providing inservice training for teachers, counselors, and administrators, to impacting on specific vocational programs.

For example, Cornell University in New York received funding for a project entitled, "Statewide Training of Inservice Team for Reducing Sex Stereotyping and Sex Bias." This project provided a six semester hour graduate level course which trained over 225 vocational educators as change agents for facilitating sex equity. It is estimated that participants made more than 56,000 contacts with students, teachers, parents, and others, relative to sex equity. Project staff conducted over 35 workshops and programs for various groups and developed a youth group program activity kit which was distributed to 75 youth advisors for their use and evaluation. In addition, the project developed and disseminated over 500 copies of the audio filmstrip, "Expanded Roles in a Changing World," and over 2,300 copies of the project source book.

The Somerset County Technical Institute in New Jersey conducted an "Action Program to Eliminate Sex and Age Bias and Sex Stereotyping in Technical Education." The school set out to: (1) develop a comprehensive recruitment program designed to acquaint women with well paying technical career paths along with the specific programs available at the Institute leading to such paths; (2) develop post-admission support services designed to keep women in technical programs after they have enrolled; and (3) develop an annual evaluation system to determine the effectiveness of both recruitment practices and post-admission support services. The program is a prototype for other institutions interested in providing students with information on and access to a wide range of education and employment services.

Chairman PERKINS. Thank you for a very good statement.

The next witness is Dr. Robert Taylor. Go ahead, Dr. Taylor.

STATEMENT OF ROBERT TAYLOR, DIRECTOR, NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION, COLUMBUS, OHIO

Dr. TAYLOR. Thank you, Chairman Perkins. I appreciate this opportunity to report to you and the members of the committee on program improvement, our stewardship of the funds, and more specifically, to make some recommendations on the reauthorization of these sections.

The key point that I hope to convey during my highlights this morning are that vocational R. & D. activities are making a difference with respect to program quality, relevance, and equity, and that, concurrently, we are developing a nationwide program improvement capacity that is going to be responsive both to national priorities and to local needs.

In my 40-page statement which I filed with the committee, I have dealt with the importance of maintaining a Federal role and presence, if you please, in vocational education and in program improvement. I think the needs and requirements in this area are as great or greater than at any time in our history.

I would like to pass over, in my oral presentation this morning, the major dimensions of the Center which were specified in the act. As you recall, they deal with applied research and development; with leadership development through a national academy and advanced study center; with program information to influence national planning and policy; evaluation activities and clearinghouse and dissemination activities.

We have worked long and hard with other elements of the program improvement dimension, the curriculum coordination centers, the State RCU's, universities, the National Advisory Council on Vocational Education and others, to bring about improved capacity and more rapid use of research and development products.

I am not going to report on those particular projects in my oral statement, but merely to say that one particular set of activities that we engaged in under the information for planning and policy function, dealt with the nationwide survey of the National Association of Manufacturers, members of the National Association of State Legislators, and also drew on the U.S. Chamber of Commerce national study. We found that 86 percent of the general public believe it is very important for the secondary schools to provide students with opportunities to learn occupational skills. Additionally, 77 percent feel that we ought to strengthen preparation through these programs; 60 percent indicated that other things being equal, they would prefer to hire a vocational graduate over a nonvocational graduate; and 53 percent said that they would be quite likely to cooperate with vocational schools and programs in providing outside work experience as a part of their training effort.

We have developed a number of evaluation handbooks and guidelines that are designed to improve the evaluation capacity of vocational education toward the end that programs are more relevant, are more efficient, and more effective. These deal with certain aspects of the programs, such as special populations, placement and followup guidelines, improving vocational education in correctional institutions, and so on.

Another point that I would like to make is that, increasingly, we are finding that other employment and training systems are using the research and development products of vocational education. For example, the six international trade unions and their apprenticeship programs are working with the National Center to improve their apprenticeship programs. We are finding that Job Corps, CETA, proprietary schools, and others engaged in various aspects of employment and training systems, are increasingly using the research products, the dissemination services, and the training services of the National Center.

I would like to comment on the accountability of the National Center. We have been assessed and found accountable in a number of ways. For example, we have had over 772 person/days of audit review and evaluation in the last 3 years. We have had 257 person/days of meetings with our national advisory committee that is appointed by the Secretary. We underwent a comprehensive midcontract review which Dr. Worthington reported on this morning. And we have just been a part of a $500,000 service delivery assessment of labs and centers being conducted by the U.S. Department of Education. In addition, we are beginning a review by the Office of Planning and Evaluation in the Department. Additionally, we are obligated to undergo a comprehensive review next January, at the end of our fifth contract year.

The point I want to make is that perhaps the best indicator of our accountability is the recent resolution passed by the State Directors of Vocational Education last September 1981, where they recommended to the Congress that $1 million be transferred from basic State grants to the budget of the National Center to support our various programs and activities, and to bring us back to our reconciliation level.

Additionally, I would like to call to your attention, on page 32 of my statement, a list of the number of key groups and organizations that have endorsed the retention of the National Center in the reauthorization.

This includes the U.S. Department of Education, the American Vocational Association, the National Association of State Directors of Vocational Education, the National Advisory Council for Vocational Education, the American Vocational Education Research Association, the University Council for Vocational Education, and the National Association of Large City Directors of Vocational Education.

All of them indicate that the National Center should be retained. And with the exception of the Department draft and Senate bill 2325, which is permissive with regard to the National Center, all endorsing key groups and organizations indicate that there shall be a National Center as the preferred language.

I have taken a moment or two in the statement to deal with some of the problems in implementing the amendments of 1976. I think perhaps the biggest problem that we have had is the problem of transmitting the priorities and the rationale of those amendments into the appropriation process.

We have not been able to transmit some of the critical priorities of this committee and the legislation into the appropriation process.

For example, we have had difficulty in maintaining the 5-percent set-aside for Programs of National Significance. We have had significant delays in securing funding for State planning.

Second, there was a 15-month delay between the passage of the amendments and the time that we were under contract as the National Center.

Third, there have been problems in clarifying or interpreting congressional intent with respect to some National Center activities. Areas where I believe we need additional clarity with respect to your expectations are in relation to the freedom of the Center to work with its National Advisory Council to establish its own priorities and to apply appropriate and rigorous inquiry processes, to balance between short- and long-term efforts the degree to which the National Center should invest limited vocational education R&D dollars in studying other employment and training systems.

The balance between programs of inquiry and service activities, and the whole area of appropriate accountability are examples of areas that need clarification.

With respect to recommendations on Programs of National Significance, I would recommend that we retain the provision for National and State occupational information coordinating committees; that the Secretary continue to make discretionary awards relative to vocational education; and that these awards should make additional use of field-initiated projects and proposals; and procurement including grants, contracts, and cooperative agreements be allowed.

I would also recommend that the Curriculum Coordination Centers be strengthened and that their relationship to other key elements in the program improvement network be improved, and that the Congress study the feasibility of awarding a limited number of one-time multiyear grants for research institutes.

With respect to the National Center, I would recommend that the reauthorization specify that there shall be a National Center, that it not be at the discretion of the administration, and that it retain the six mandated interdependent functions. Further, we need a better sense from Congress with respect to whether we are a specific arm of an administration, aiding and implementing administrative goals and programs, or whether it is our role to take a longer term perspective on problems and issues that may not be conveniently resolved in a 4-year timeframe.

Additionally, I think we would appreciate some guidance on whether we ought to be viewed as responsible for implementing the new amendments which you are writing, or instead be thinking further ahead to problems and issues that might be a part of the next reauthorization cycle, or perhaps you want us to engage in both.

And finally, I would recommend that we operate under a grant rather than a contract, which would give us a great deal more freedom with respect to gathering data and surveys, and other kinds of information that are going to be important to illuminate the problems and activities of the vocational education enterprise.

I would also urge, with respect to State program improvement, that the Congress reconsider its position on the 5-year impact rule. I certainly concur on the need and importance of accountability in all areas of vocational education, but I think, in some instances,

the universal application of the 5-year impact goal works against certain areas of program improvement. Here we need a balanced portfolio. Perhaps it is appropriate for leadership and curriculum development, but we need the opportunity to make longer term investigations that are necessary to study major problems.

Hopefully, too, we can strengthen State responsibilities for dissemination.

[The prepared statement of Robert Taylor follows:]

PREPARED STATEMENT OF DR. ROBERT E. TAYLOR, EXECUTIVE DIRECTOR, NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION, OHIO STATE UNIVERSITY

INTRODUCTION

Thank you, Chairman Perkins and members of this Subcommittee, for providing us with this opportunity to update you on vocational education program improvement, and to report on our stewardship of public funds. We also appreciate your continued support of our efforts to advance the quality and responsiveness of vocational education programs throughout the nation. My name is Robert E. Taylor, and I am the Executive Director of the National Center for Research in Vocational Education at The State University in Columbus, Ohio.

In my testimony, I will concentrate primarily on those activities under Programs of National Significance. More specifically, I will be concentrating on the National Research Center for Vocational Education, mandated by the Congress in the 1976 Amendments. Other members of the panel will be reporting on other elements such as state program improvement activities and nationwide program improvement developments.

The key point that I hope to convey to you today is that vocational education R&D activities are making a difference in program quality, relevance and equity, and that we have made substantial progress in developing a nationwide program improvement capacity that is responsive to both national priorities and local needs.

THE FEDERAL ROLE IN VOCATIONAL EDUCATION AND PROGRAM IMPROVEMENT

Perhaps the first question we should address is whether or not there is a Federal role in vocational education and program improvement. It is my judgment that the rationale which necessitated and justified the initial categorical support for vocational education at the federal elvel is as sound and as critical today as it has been at any point in the United States' history. The vocational education enterprise is a decentralized system which has repeatedly proven that it can be responsive to both local and national priorities. It is a program that is not only accessible to most of our population and employers, but also one that embodies a high committment to preparing and upgrading a skilled work force. Further, the need for a continuing Federal role in the area of program improvements has, in my judgment, substantially increased. The Federal investment serves as a unique catalyst for improving, strengthening, and expanding vocational education programs, and contributes to both national priorities and local needs.

In reviewing the intent and structure of the current amendments, it seems obvious that reauthorization of state and national program improvement is essential for contributing to program quality, responding to key national priorities, contributing to local needs, building program and renewal capacity, and providing essential data and services for vocational education. Such an effort will help provide an increasingly effective and appropriate strategy for fulfilling a national leadership role and assuring Congressional intent. The programs supported in these amendments (Public Law 94-482, Part A, Subpart 3 and Part B, Subpart 2) are designed to influence the quality and character of Federal program investments, and also to impact on the ten state and local dollars that overmatch each Federal dollar. Further, these activities provide a means for focusing federal, state, and local resources on such problems as economic development, equity and access, improving linkages with business and industry, and vocational education's role in national defense. By providing essential research, development, training, policy and planning information, and evaluation activities that are relevant and useful to large numbers of states, these programs are cost-effective since they eliminate duplicate costs, accelerate program improvement, and provide valuable information both to policymakers and to those responsible for the conduct of the vocational education enterprise.

THE ROLE AND FUNCTIONS OF THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION

The National Center is the most comprehensive program improvement effort mandated under Programs of National Significance in the Vocational Education Amendments of 1976. The role of the National Center is to address problems of national significance and to help build a nationwide program improvement capacity for assuring quality, relevance, and equity in programs of vocational education. The rationale for the National Center grows out of the recognition that there are nationally significant problems that require sustained and comprehensive inquiry. Additionally, this rationale recognizes the several benefits, including cost effectiveness, of a critical mass of resources, including a full-time multidisciplinary staff. It also requires an organizational posture designed to optimize the interdependent and complementary functions of reaserch, development, training, evaluation, information for policy and planning, and information and utilization services.

Through a competitive procurement process, the U.S. Department of Education designated the Center for Vocational Education at The Ohio State University to commence work on January 15, 1978—fifteen months after the passage of the Amendments. The National Center, now in its fifth year of operation, fulfills its role by carrying out six functions that were specified in the legislation. These functions were to—

A. Conduct applied research and development on problems of national significance in vocational education.

B. Provide leadership development through an advanced study center and inservice education activities for state and local leaders in vocational education.

C. Disseminate the results of the research and development projects funded by the Center.

D. Develop and provide information to facilitate national planning and policy development in vocational education.

E. (i) Act as a clearinghouse for information on contracts made by the states pursuant to section 131, section 132, and section 133, and on contracts made by the Commissioner pursuant to this section; and (ii) compile an annotated bibliography of research, exemplary and innovative program projects, and curriculum development projects assisted by funds made available under this Act since July 1, 1970.

F. Work with states, local educational agencies, and other public agencies in developing methods of evaluating programs, including the follow-up studies of program completers and leavers required by section 122, so that these agencies can offer job training programs which are more closely related to the types of jobs available in their communities, regions, and states.

MAJOR ACCOMPLISHMENTS OF THE NATIONAL CENTER

It is difficult, if not impossible, to characterize fully the major accomplishments of a comprehensive national research and development center that carries out six interdependent functions—functions that call for interfacing with other elements of the scientific community, other employment and training systems, and the nationwide vocational education infrastructure. At the present time, we have underway a number of significant lines of inquiry that focus on key reauthorization issues and that will yield relevant data, policy alternatives, and recommendations as the reauthorization process continues. These include such areas as the effects and patterns of participation in vocational education; improved planning and evaluation of programs; appropriate outcomes for different levels and types of vocational education; implementing and improving programs of high technology; and others.

National Center Outreach

Since 1978, the National Center has developed and released 398 reports to the public on such topics as the role of vocational education in economic development and national defense; the use and transfer of high technology; strategies for increasing coordination with business, industry, and labor; educational equity; increased responsiveness to populations with special needs, and evaluation of and planning for vocational education programs in corrections. In addition, we have promoted the dissemination and use of numerous other exemplary research, development, and curriculum products funded through state program improvement under our leadership training and dissemination and utilization functions. During the last four years, the National Center has worked with vocational educators in every state in the nation and in many local communities to advance the quality of vocational education programs; to increase the responsiveness of these programs to the labor market; to improve programs for special populations; and in general, to build and improve the vocational education system's capacity for program improvement. The National Center's activities represent a fine balance of research, inquiry, and service. Staff members have provided a broad range of assistance to the public since 1978, and we have numerous outreach mechanisms that I would like to review for you briefly.

We have conducted 342 national conferences and workshops for 14,966 state and local leaders from all states and territories on such significant issues as the role of vocational education in economic development, entrepreneurship, the transfer of technology into occupational training, techniques in policy and planning formation, serving special populations, the development of leadership skills, and the improved management of shrinking financial resources.

In conducting our R&D activities, the National Center has utilized 470 field sites in all the states, territories, and districts. Through these efforts, we have worked with 52,666 state and local leaders to seek their inputs to our vocational education R&D efforts.

In the last four years, we received over 3,418 visitors from all states and 55 foreign countries who came to consult with our staff, learn about National Center products and activities, and utilize our information resources.

In addition to these on-site visitors, we have fulfilled over 194,109 requests for information and assistance (received by letter or telephone), from a variety of individuals with varying roles and responsibilities located in a range of institutional settings. From both the public and private sector, these individuals have sought information about such national priorities as economic development; exemplary programs for special populations; advanced evaluation methodologies; and ways to foster linkages between business, industry, and labor. Other materials that have been highly sought after include high-technology instructional materials and programs; improved instructional delivery systems for teacher education and professional development workshops; and up-to-date curriculum for occupational training.

Building a Capacity for Program Improvement

Concurrent with carrying out its own R&D programs, the National Center has also provided leadership to the development of a nationwide program improvement capacity. This leadership has been directed toward developing data bases of essential information; transforming information into accessible and useful forms for linking organizations into networks for collaborative endeavors; training key actors to operate and participate in the program improvement network; selecting and disseminating products; and assisting users with implementation. Most of this work has been done in collaboration with such groups as the regional curriculum coordination centers, state research coordinating units, university teacher education departments, the National and State Occupational Information Coordinating Committees, the National and State Advisory Councils for Vocational Education, and other program improvement organizations. For example, the National Center has—

Developed a computerized file of information about federal- and state-administered program improvement projects with the cooperation of state Research Coordinating Units.

Initiated a tracking system that matches projects with their resultant products and information in cooperation with the ERIC Clearinghouse on Adult, Career, and Vocational Education.

Developed a computerized file that will provide comprehensive information about curriculum materials with the cooperation of the regional curriculum coordination centers and their State Liaison Representatives.

Developed a computer-based message switching network that will streamline communications between users—a system in which fifteen states are already participating.

Coordinated the planning of three cooperative research projects in which research coordinating units in different states sponsored different phases and stages of larger projects.

Conducted four annual dissemination conferences designed to develop dissemination strategies, introduce new products, and train personnel from curriculum coordination centers, research coordinating units, state departments of education, and universities.

Collaborated in the development of dissemination plans in several states.

Developed and distributed a quarterly newsletter to over 2,000 recipients to keep them informed about network developments, new products selected for nationwide dissemination, and R&D efforts that will soon yield products.

The nationwide capacity of program improvement has been advanced markedly in the past five years largely through the following National Center efforts:

The identification of program improvement projects that have been completed or are underway by means of an economical, computerized search of a central file.

The summarization and analysis of data about program improvement projects, their funding levels, contract performers, substantive focus, and target educational levels.

The identification of curriculum materials located in regional Curriculum Coordination Centers by means of a single, computer-searchable central file.

The development of a quick and convenient communication system among the National Center, Curriculum Coordination Centers, and their counterparts across the United States through a computer-based switching network.

The availability of training services through the National Academy for Vocational Education.

The planning of joint activities under the leadership of the National Center.

The program improvement capacity that has been developed during the past five years is now showing concrete results in local programs as new products and information are put into use. Another important point: the actors in the program improvement network are now more acutely aware of their essential interdependence, the rewards of cooperative endeavors, and the wastefulness of duplicative effort.

Selected Efforts Under the Mandated Functions of the National Center

Following are some selected activities in each of the functions for which the National Center is responsible. Many of these lines of inquiry are on-going and will continue to yield new insights and information of value to both practitioners and policymakers.

Applied research and development

One of the functions the National Center is mandated to carry out is the conduct of applied research and development on problems of national significance.

Performance-Based Teacher Education (PBTE) materials, a set of 100 modules developed to address the widely-recognized need to improve the professional preparation of thousands of secondary and postsecondary vocational teachers, were completed under this function. Thirteen additional PBTE modules have been developed to provide vocational teachers with skills required to meet the special needs of a wide variety of students in their classes, such as the physically handicapped, gifted and talented, educationally and economically disadvantaged, nontraditional students, students with limited-English proficiency, and adults in need of retraining. Six additional modules have been developed to assist vocational teachers in improving their students' basic skills. Another six modules were developed to help teachers install and manage competency-based instructional programs. Another module was designed to combat problems of student drag and alcohol abuse. Furthermore, the original series of 100 modules has been revised to ensure that content and resources are current and topical and to reflect awareness of the special concerns addressed in subsequent module development. In addition to focusing on teacher training and upgrading, approximately thirty performance-based modules have been developed for preparing local vocational education administrators, and another forty-two modules have been prepared for career guidance personnel.

Since 1978, over 500,000 of the initial set of 100 self-instructional modularized units have been distributed through commercial publishers to every state, five United States' territories, eleven Canadian provinces, and thirty-two foreign countries. Approximately 1,675 different agencies have purchased modules, including approximately 1,300 educational agencies; 375 businesses, industries, and other noneducational agencies; and 140 international agencies. In addition, 685 individuals have purchased the modules. The primary purchasers have been 400 colleges and universities. Materials purchased by these colleges and universities are being used for both preservice and inservice vocational teacher education programs. An average of thirty teachers are enrolled yearly in each university PBTE program, while an average of fifteen are enrolled in each postsecondary and secondary inservice program. From such information, we estimate that over 100,000 teachers have been trained with PBTE modules.

Full-scale implementation, as well as creative adaptation of PBTE, is occurring in many agencies across the nation. For example, the modules are used to train teachers coming directly from business and industry, and are used for inservice programs for practicing teachers at approximately 500 secondary schools. We have seen an increased use of the PBTE modules for staff development programs at public and private postsecondary schools. Approximately 400 postsecondary institutions and ninety state agencies use PBTE most frequently as part of a comprehensive personnel development evaluation and system. The 375 private sector corporations, such as Caterpillar Tractor Company, IBM, and Union Carbide, are using the PBTE modules most frequently as part of company training programs for improving instructional techniques. The National Association of Trade and Technical Schools have adopted PBTE as their primary curriculum for training and updating their technical instructors.

There is evidence that PBTE is having a long-term impact on improving the caliber of vocational education teachers, especially in the areas of instructional planning, reinforcement of student skills, individualizing instruction, and student performance evaluation. Data collected indicates that the PBTE increases the teachers' ability to be self-evaluative and their confidence in themselves as teachers because this training has helped them realize their full potential. PBTE has also contributed directly to vocational education classrooms by increasing the use of competency-based techniques; improving equal access and opportunity for all students; and improving the performance of local school administrators in evaluating teachers.

Leadership development

The leadership development activities of the National Center are carried out through two subunits: the National Academy for Vocational Education and the Advanced Study Center. The National Academy for Vocational Education is responsible for conducting not only institute programs such as national seminars and workshops, but also in-residence programs to provide intensive, on-site training for vocational education leaders at the National Center. The Advanced Study Center provides opportunities for scholars and other leaders to pursue advanced inquiry in vocational education and related disciplines.

The National Center has, in the past 5 years, selected and supported 28 Advanced Study Center Fellows from nineteen states and the District of Columbia; provided assistance to them in the development of their programs; supported their research and leadership growth activities; and benefited from their contributions to the field of vocational education research and development. These 28 Fellows came form fifteen university campuses, five state departments of education, four community colleges, three local school districts, and one state manpower office. The new knowledge, concepts, and ideas which the Fellows generated while at the National Center have not only benefited staff, but have also contributed to the intellectual capital of the entire vocational education enterprise. For example, a Fellow from the state of Washington developed a model for community college planning that he took back to implement in his position as planning officer of a community college. Additionally, a number of workshops for community college planning personnel were conducted nationally utilizing this planning model. Another Fellow recently developed a model for career decision-making that has been adopted by the state of California.

In addition, the National Center has supported 117 graduate research associates who completed doctoral degrees in fourteen departments and four colleges or schools of The Ohio State University. While pursuing their studies, these persons served as professional staff members on a 50-percent basis, and directly contributed to the research and development program of the National Center. The number of professionals served by this leadership dimension of the National Center is equivalent to the annual number of professionals that were served by sixteen institutions under the National Leadership Development Program provision during any single year from 1977 to 1981.

Seventy-four persons from different states have come at their own expense to participate in the National Academy's In-residence Program. The average length of stay for this open-entry, open-exit program was just over one month. The following statements describe the activities of these program participants:

The 74 former In-residence participants have directly influenced 48,060 students (per year), 14,824 teachers, and 3,884 supervisors/administrators with the knowledge they gained and the competencies they developed while at the National Center.

The needs of special populations led the list of topics studied by participants in the In-residence Program. It was followed closely by evaluation, career development/guidance, and planning/policy.

Two-thirds of the participants were either administrators or teachers from local schools or colleges and universities. State education agency personnel and postsecondary/two-year college teachers were well represented in the participants.

Access to knowledge resources was judged to be the most valuable part of their experience at the National Center. This included use of vocational and technical material from the library, conferences with National Center staff, and discussions with other inresidents. An average of 17 National Center publications was purchased by each participant. Participation in National Center seminars and workshops was also considered a very useful activity.

Two examples of improvements that have occurred throughout the country as a result of the In-residence Program are that—

Through the mechanisms of the newly established Area Planning Councils in Iowa, a school-to-work transition model for rural students, developed by an In-resident at the National Center, will be utilized by 445 school district superintendents.

In the District of Columbia, improved evaluation procedures developed by an In-resident are being used to improve vocational education programs for 30,000 students.

Information for national planning and policy

The effects of vocational education.—One of the key policy questions in vocational education today is "What are its effects?"

The National Center has conducted several studies on the effects of participating in vocational education. One of these studies included a synthesis of all reported literature, from 1968 through 1979, that dealt with the previously established effects of vocational education; analyses of national longitudinal studies; and the collection of new data from high school transcripts. The data from these transcripts provided more valid and reliable information than data from previous studies that had relied on students classified through self-report (see my testimony to this Committee on September 24, 1980 for more detailed information). These efforts yielded the following general conclusions:

Over three-quarters (78 percent) of secondary students take at least one vocational course in high school. A little more than one-quarter (29 percent) take a concentrated sequence of courses in specific occupation areas. These concentrators take about two-thirds (63 percent) of all available vocational courses.[1]

There is some tendency for more extensive participation in secondary vocational courses to be associated with slightly higher rates of employment.[2]

Postsecondary vocational graduates generally have lower unemployment rates than do their nonvocational peers.[3]

Vocational participation is associated with a greater likelihood of completion of alternative postsecondary training such as apprenticeship and employer-sponsored programs.[4]

A majority (50 to 70 percent) of secondary and postsecondary vocational graduates obtain jobs in training-related areas.[5] The more concentrated a graduate's preparation in a vocational specialty, the greater are his or her chances of obtaining training-related employment.[6]

Females, both minority and white, with concentrated vocational training have a positive wage advantage when compared to their general education counterparts.[7] Longer-term follow-up data has also yielded positive earnings effects for male marketing and trade and industry graduates, as well as for female business and trade and industry graduates.[8]

Vocational graduates report more satisfaction than general curriculum graduates with their high school education. Most graduates were found to be satisfied with their jobs.[9]

All of these analyses also underscored the strong influence that sex, race, labor market condition, and early family circumstances have on educational and employment outcomes. Although vocational preparation cannot always overcome the effects of these factors, these studies should provide clues to strengthening and improving our efforts.

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[1] Campell, Paul B.; Orth, Mollie N.; and Seitz, Patricia. "Patterns of Participation in Secondary Vocational Education." (Columbus, Ohio: The National Center for Research in Vocational Education, The Ohio State University, 1981).

[2] Campbell, Paul B., et al. "Employment Experiences of Students with varying Participation in Secondary Vocational Education." (Columbus, Ohio: The National Center for Research in Vocational Education, The Ohio State University, 1981).

[3] Mertens, Donna M. et al. "The Effects of Participation in Vocational Education." (Columbus, Ohio: The National Center for Research in Vocational Education, The Ohio State University, 1980).

[4] Mertens, Donna M. and Gardner, John A. "Vocational Education and the Younger Adult Worker." (Columbus, Ohio: The National Center for Research in Vocational Education, The Ohio State University, 1981).

[5] Mertens et al., "The Effects."

[6] Campbell et al., "Patterns of Participation."

[7] Campbell et al., "Employment Experiences."

[8] Mertens and Gardner, "Vocational Education."

[9] Mertens et al., "The Effects."

Attitudes toward Vocational Education.—The National Center has also conducted surveys of several groups concerned with vocational education on their attitudes and perceptions toward the discipline. Some highlights of these combined surveys are that—

Eight-six percent of the general public believes it is very important for the secondary schools to provide students with opportunities to learn occupational skills.

Over three-fourths of the public (77 percent) thinks the schools should give more emphasis to career preparation through vocational education programs.

About one-third (36 percent) of the respondents reported they had taken job preparation courses in high school or in a community college. Of those who reported taking such courses, 56 percent thought their training had been very useful, and 30 percent said it had been somewhat useful. Only 7 percent rated it "not too useful," and 5 percent thought it "not useful at all".[10]

School board respondents were just as strong in their support for occupational skill training as was the general public, with 93 percent of these respondents judging occupational skill training as important. They were somewhat less likely to call for more emphasis on career preparation, however, as half (49 percent) felt the current emphasis was appropriate.[11]

During 1981, the National Center entered into a cooperative agreement with the National Association of Manufacturers (NAM) to provide technical assistance for a national survey of their members' attitudes toward public vocational education.[12]

Contrary to the frequent claim that all employers want from the high schools are young people who can read, write, and have good work habits, these respondents also expressed a strong preference for skill training. Three-fourths (73 percent) of the respondents thought high schools should teach specific occupational skills as well as employability skills such as attendance, punctuality, and work attitudes.

The respondents also felt that their companies benefited from vocational education (5 percent), that vocational graduates required less training (60 percent), and that everything else being equal, they would prefer to hire a vocational graduate rather than a nonvocational graduate (85 percent).

The manufacturers contacted by NAM expressed considerable willingness to cooperate with public vocational education in a variety of ways. Twenty-one percent reported that they currently provide work experience for students, and an additional 53 percent said it was "quite likely" they would do so. Results quite similar to this were found in a national survey of personnel directors conducted by the U.S. Chamber of Commerce.[13]

To obtain a further understanding of how state legislators view public vocational education, the National Center provided technical assistance to the National Conference of State Legislatures (NCSL) to conduct a survey of selected members.[14] In this survey, state legislators thought vocational education was producing the following outcomes to a "great extent" or a "moderate extent": teaching job skills (89 percent); increasing awareness of career opportunities (87 percent); increasing awareness of technology (85 percent); reducing unemployment (78 percent); and teaching good work habits (77 percent).

The major recommendations that the legislators had for increased efforts to improve vocational education were to involve employers in the evaluation of vocational programs (69 percent) and in the development of vocational education curriculum (67 percent).

Evaluation studies

One of the major accomplishments of the evaluation function of the National Center has been the development of a series of fifteen handbooks. These handbooks, which are responsive to Congressional interest, were designed to provide practical advice to personnel in state and local education agencies who are charged with evaluation responsibilities. The following titles are illustrative of these handbooks: "Guidelines and Practices for Follow Studies of Former Vocational Education Students." "Guidelines and Practices for Follow-up Studies of Special Populations." "Specifications for Longitudinal Studies." "Some Key Outcomes of Vocational Education: A Report on Evaluation Criteria, Standards and Procedures." "Evaluation Guidelines and Practices for State Advisory Councils." "Using Evaluaton Results." "Evaluating Vocational Education Programs: A Handbook for Corrections Educators."

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[10] Lewis, Morgan V.; McElwain, Douglas C.; Fornash, Patricia G. "Attitudes Toward Vocational Education and the Relationships Between Family Income and Participation in Vocational Education." (Columbus, Ohio: The National Center for Research in Vocational Education, The Ohio State University, 1980).

[11] Ibid.

[12] Nunez, Ann R. and Russell, J. F. "Manufacturer's Views of Vocational Education." (Columbus, Ohio: The National Center for Research in Vocational Education, The Ohio State University, 1981).

[13] Hemmings, Madeleine B., "Presentation to 1982 Spring Conference, National Association of State Directors of Vocational Education," Rosslyn, Virginia, April 29, 1982.

[14] Nunez, Ann R. and Russell, Jill F. "State Legislator's Views of Vocational Education." (Columbus, Ohio: The National Center for Research in Vocational Education, The Ohio State University, 1981).

Nine national workshops have been conducted using these National Center evaluation handbooks. These workshops have been held throughout the United States with more than 400 key individuals participating. Additionally, eight participants in the National Center's In-residence Program had the opportunity to work with our in-house evaluation staff, and to assist in the development of the handbooks. Nearly 10,000 copies of these evaluation materials have been disseminated by the National Center's Publications Office.

Clearinghouse services

The purpose of the National Center's Clearinghouse is to fulfill our congressional mandate to maintain descriptive data on research, exemplary programs, and curriculum development programs and to disseminate this information to the national program improvement network of federal agencies, state departments, Research Coordinating Units, Curriculum Coordination Centers, postsecondary groups, R&D personnel, and others.

The goal of these services is to reduce duplication of the states' information efforts by acting both as a clearinghouse for state investments in program improvement and as a resource for adoption of program innovations—thereby increasing the utilization (and hence, the cost-effectiveness) of R&D.

Through the National Center's Clearinghouse and information services, vocational educators have access to annotated bibliographies of the 7,953 federal and state program improvement projects conducted between 1970 and 1977, to an on-line computer file of 4,000 projects conducted since 1977, and to projects currently underway. Information about these projects helps the federal and state education agencies account for expenditures, assess progress in priority problem areas, and avoid duplication of work completed or in progress. Through cross-checks with other information systems such as the Educational Research Information Center, it is also possible to track the output of completed projects and to encourage the use of the best products and information nationwide. The Clearinghouse also collects military-developed technical training materials and civilian curriculum materials and makes information about these available through the network of regional curriculum coordination centers, State Liaison Representatives, state instructional materials laboratories, and intermediate service agencies.

Dissemination and utilization of vocational education R&D products

The National Center is now providing leadership to a nationwide dissemination and utilization network that facilitates the rapid use of the best R&D products available for program improvement. Since 1978, the National Center has selected thirty-five products, reports, and instructional curricula for nationwide dissemination according to their relevance to national priorities and to a set of rigorous standards of excellence. These products represent the very best that have been developed at the state and national level with the support of federal program improvement monies. Additionally, we have commissioned the writing of 43 knowledge transformation papers that provide a synthesis of the literature and research to vocational educators and others on such important topics as productivity, equity, serving populations with special needs, and planning for more responsive programs.

Since 1978, the National Center has worked with the entire program improvement network of regional Curriculum Coordination Centers, state Research Coordination Units, State Liaison Representatives, state departments of education, and university teacher education departments to get these products disseminated and used. The National Center has conducted 178 dissemination workshops for over 12,600 vocational educators to introduce them to and train them in the use of program improvement products and information. Through these workshops and other activities, over 45,000 copies of 78 program improvement products and over 155,649 copies of related briefs, fact sheets, and brochures were disseminated. Many of these products have been adopted at the local and state levels, and several states have requested permission to reprint these products for local dissemination.

Use of the National Center's Vocational Education Program Improvement Products by Other Employment and Training Systems

Overall, the National Center is making a difference in the quality and impact of vocational education programs throughout the nation. We are developing a special capacity to enhance the effectiveness and efficiency of the present system of vocational and technical education. Of equal importance is the fact that our information and leadership services, as well as our R&D products, are increasingly being sought and used by other employment and training groups such as CETA prime sponsors, Job Corps, apprenticeship programs, private industry, and private trade and technical schools. For example, we are currently working with six national and international labor unions who have contracted with the National Center for assistance with the development and improvement of their apprenticeship training program through the adaptation of National Center programs and products. We are under contract with the Job Corps to develop clearinghouse services and individualized instructional packages in such areas as health, business management, and apartment maintenance. Private industry is using our performance-based teacher education materials to improve the quality of on-the-job instruction. We have also worked extensively with the private trade and technical schools who are using our research and development products and our national training programs. In addition, we have recently completed efforts with private industry to strengthen various aspects of their on-the-job training. Clearly, investments in vocational education program improvement at the National Center are having a multiple impact across a number of employment and training systems.

National Center Accountability

In addition to mandated reviews and the forty-nine accountability reports required by the U.S. Department of Education, the National Center has been assessed and found accountable in a number of significant ways. For example, during the past three years we have had over 772 person days of Federal audit, program evaluation, or on-site review. Additionally, we have had 257 person days of meetings with our National Advisory Committee—a committee that is appointed by the Secretary of Education. Scores of meetings of project advisory groups have been held, and key groups such as State Directors of Vocational Education Executive Committee meet yearly at the Center to advise us and keep us current on our work.

Further, in late 1980 we underwent a comprehensive Mid-Contract Review that was conducted by the U.S. Department of Education and that involved distinguished researchers and practitioners who spent fifty person days on-site reviewing our programs and interacting with our staff. The group rendered a report on our progress which was shared with Congress and the field. It was highly complimentary of our work and progress, and outlined recommendations for the future that I have incorporated later in my testimony (see Appendix A).

Further, we have just been reviewed as a part of the $500,000 Service Delivery Assessment of Educational Labs and R&D Centers by the U.S. Department of Education. Currently, we are undergoing an additional evaluation by the Office of Planning and Evaluation in the U.S. Department of Education. In addition, we are obligated to undergo a comprehensive review next January at the end of our fifth contract year. While we are pleased to cooperate with these reviews and we learn and profit from these activities, it is consuming of our time and staff resources. In addition, in some instances the activities are redundant.

Perhaps the best indicator of our accountability, however, is the recent resolution passed by the National Association of State Directors of Vocational Education at their last annual meeting on September 24, 1981 (see Appendix B). That resolution recommended to the Congress that $1 million be transferred from basic state grants to the category of Programs of National Significance to return the support of the National Center to its reconciliation level of $5.5 million. This resolution indicates that state directors of vocational education believe that the National Center has served as an increasingly important national resource to vocational education and related programs since 1965 by conducting research on significant problems and providing essential services to vocational educators and others at the local, state and national levels through our several functions.

Other positive indications of our stewardship of the National Center responsibilities are contained in the legislative position statements of several significant organizations and groups. These are covered on the following pages.

Resource Levels for the National Center

An important perspective in considering the appropriate resource level for the National Center is to consider its nationwide responsibilities in carrying out six interdependent functions, and to compare its current resource level of $4.633 million with the resources available for program improvement in states such as California ($8,348,011), Texas ($5,991,979), Illinois ($4,068,198), New York ($6,674,525) and other large states. Additionally, you would be interested to learn that today, in order to purchase activities equivalent to those we had in our second-year budget of $5,061,000, would require approximately $6,400,000. Clearly, we have lost relative buying power while the demand for our services and the divergent expectations for R&D among different groups has grown. Through such comments, I not only want to emphasize the need to match demands, expectations, and resources but also to point out our increased organizational maturity and ability to deliver high quality products and services.

SUPPORT FOR CONTINUING THE NATIONAL CENTER PROVISIONS IN THE REAUTHORIZATION OF VOCATIONAL EDUCATION

Recognition of the importance of the National Center provisions in the Amendments and the effectiveness of The Ohio State University in carrying out this assignment is embodied in the aciton of key groups and organizations that have endorsed the retention of provisions for a national center in their legislative statements. These groups and organizations including the U.S. Department of Education; the American Vocational Association; the National Association of State Directors of Vocational Education; the National Advisory Council for Vocational Education; the American Vocational Education REsearch Association; the University Council for Vocational Education; and the National Association of Large City Directors of Vocational Education.

Senate Bill 2325, "Vocational and Adult Education Consolidation Act of 1982," introduced by Senator Hatch also provides for a National Center for Research in Vocational Education. While the U.S. Department of Education's draft and Senate Bill 2325 are permissive with regard to a continuing provision for the National Center, the legislative statements of the other seven key groups and organizations recommend its continued mandate in reauthorization.

PROBLEMS IN IMPLEMENTING THE EDUCATION AMENDMENTS OF 1976

Perhaps our greatest single problem, and the one that is most pervasive and affects the largest array of activities under state and national programs improvement, is the difficulty we have in transmitting the rationale and priorities of the Amendments to the appropriations process. For example, we experienced delays in securing funding for state planning—a function that was central to the Education Amendments of 1976. Additionally we experienced difficulty in maintaining the 5 percent mandated setaside for Programs of National Significance. Such appropriations shortcomings make it impossible to achieve Congressional intent and to maintain the balance and integrity of the law.

Secondly, you will note that there was a fifteen-month time delay between the passage of the Education Amendments of 1976 and the time when we were under contract as the National Center. These were critical months in terms of beginning programs of inquiry and establishing the support services necessary to assist the vocational education community in implementing the provisions of the law.

Third, there have been problems in clarifying or interpreting Congressional intent with respect to some National Center activities. Areas where I believe we need additional clarity with respect to your expectations are in the relative freedom of the National Center to work with its Advisory Committee to establish its own program priorities and to apply appropirate and rigorous inquiry processes. The balance between short- and long-term efforts, the degree to which the National Center should invest limited vocational education R&D dollars in studying other employment and training systems, the balance between programs of inquiry and service activities, and the whole area of appropriate accountability are examples of other specific areas that need clarification. Unfortunately, as you recall from my section of the testimony on accountability, we currently are living with a mentality whereby we are "pulling up the grass every week to see if the roots are growing."

REAUTHORIZATION RECOMMENDATIONS

Other programs of national significance

The Congress should continue its support of the National and State Occupational Information Coordinating Committees. It should also provide opportunities for the Secretary to make discretionary project awards relating to national priorities. These discretionary awards should center on the most pressing national problems, and should utilize contracts, grants, and cooperative agreements as appropriate. Additionally, some of the awards should be based on field-initiated proposals. Such a procurement plan would provide greater opportunities for members of the scientific comunity to apply their imagination and creativity to national priority problems, and to engage more actively in their solution. The present practice of specifying the activities through a Request for Proposal (RFP) delimits initiatives to the views of the bureaucracy, and does not provide appropriate opportunities for members of the scientific community to participate in designing alternative strategies.

I would also recommend continued support for the curriculum coordination centers, and suggest that we continue strengthening their working relationships with the National Center, the research coordinating units, personnel development units, and other major instrumentalities in vocational education program improvement.

Assuming that full appropriations are granted for Programs of National Significance, as an alternative to regional research centers, and taking into account the continuation of the current curriculum coordination centers, I recommend that Congress study the feasibility of awarding a limited number of one-time, multi-year grants (eight to ten) to research institutes. These institutes would be able to use this award to undertake investigations of major national priority problems and to build their research and development capacity at the same time. This would more fully take advantage of the vocational R&D capacity and related disciplines on university campuses. The problem foci and research activities of these institutes should be coordinated with the long-term research program of the National Center.

The National Center for Research in Vocational Education

The reauthorization should specify that there shall be a National Center for Research in Vocational Education.

The National Center should also retain its present six interdependent functions specified in the Education Amendments of 1976. The Advisory Committee provisions should be retained, and representation of Congressional perspectives should be included in the Advisory Committee membership. It would also be helpful to specify the type of accountability that is considered appropriate and adequate.

We need a better sense of Congressional intent with respect to whether the National Center is to be an arm of a specific administration aiding in implementing administrative goals and programs, or whether it is to take a longer-term perspective on problems and issues that may not be conveniently resolved in four-year time frames.

A key question for this committee is, do you want the National Center to concentrate on research and development activities that will assist the vocational education enterprise in implementing the new amendments that you are writing, or do you want the National Center to be thinking further ahead to the problems and issues that you might be considering in the next reauthorization process, or do you want us to engage in both? The Mid-Contract Review panelists addressed this problem in the following statement:

"Decisions are made to facilitate the development of a product or service on time, which is within the budget, and which is useable by a variety of audiences. Since the contract must have a one-year option negotiated each year, the Center feels pressure to prove the worth of their efforts by having a rather large set of products each year that illustrate their efforts. This pressure for a yearly product orientation is intensified by the "5-year impact" restriction that exists in the 1976 Vocational Amendments. While it is not explicitly stated in the National Center authorization, it creates an expectation that all products should have an impact in the field within five years of their completion. Thus the decisions tend to be in the direction of achieving solutions to short-term problems in the field rather than identifying those that need long-term solutions."[15]

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[15] A Report of the Mid-Contract Review of the National Center for Research in Vocational Education, The Ohio State University, Columbus, Ohio (Washington, D.C.: The Office of Vocational and Adult Education, November 1980), P. 26.

The evaluation team empaneled by the Department of Education for our Mid-Contract Review also recommended that the National Center operate under a grant rather than a contract. It was their view that a grant provided a better mechanism for supporting the kind of research activities expected of the National Center. Additionally, a grant relationship greatly facilitates the collection of data and other information gathering activities. The report states:

"Part of the problem is the requirement that the Center be on a contractual rather than on a grant basis. It is noted that preaward audits for the past three years and postcontract fiscal audits for the past two years have been successful without exception."[16]

Recommendations for State Program Improvement

Here I would urge that the Congress reconsider its position on the five-year impact rule, in Section 131b, which reads: "No contract shall be made pursuant to subsection (a) unless the applicant can demonstrate a reasonable probability that the contract will result in improved teaching techniques or curriculum materials that will be used in a substantial number of classrooms or other learning situations within five years after the termination date of such contract." The practical consequences of this rule have been to skew investments in state and national program improvement toward shorter-range activities (primarily curriculum development) with a more assured but more limited payoff. We need a balanced portfolio. Perhaps leadership development and curriculum activities should remain under this mandate. However, we need to have the freedom to undertake longer-term investigations which are necessary to study major problems. These longer-term investigations should have the promise of greater ultimate leverage on vocational education program improvement.

Congressional language that strengthens state responsibilities for dissemination and for building on the relationships that have been established during the current authorization period among the National Center, curriculum coordination centers, and states is also needed.

SUMMARY

In summary, we can report that your investments in improvement activities at the national and state levels are making a difference, that essential capacities have been developed, and key linkages established. We still have problems but we are working hard to overcome them. We must remember that research and development takes time. Programs of inquiry that yield significant results and implications for vocational education must be carefully selected, designed, and executed. Additionally, vocational education must monitor the research of other disciplines for its potential application to our field. We need to "engineer" useful products and interventions, try them out in appropriate settings, and validate their results. Appropriate dissemination and training must be undertaken. Again we are working against a time factor. The point I want to make is that these activities should be ongoing, uninterrupted processes.

I want to assure you that there are now many research and development products growing out of the state and national program improvement investments. Such products are coming on-line, addressing such significant problems as increasing the responsiveness of vocational education to special populations, increasing sex fairness, improving planning and evaluation, and improving vocational education's ability to contribute to economic development and national defense. Many other significant areas are also under investigation and development. Implementation will require appropriate dissemination and training activities.

One of our continuing challenges is to apply the cannons of science to problems of vocational education in order to wisely invest and administer our resources. To avoid insularity, we must capitalize on the work of other disciplines and effectively articulate with a wide range of key actors toward the end that programs of vocational education can be responsive to the full range of individual and societal needs.

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[16] Ibid, p. 27.

APPENDIX A.—RECOMMENDATIONS FROM THE MID-CONTRACT REVIEW OF THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION

SUMMARY

The following findings and recommendations emerged from the reviewer's assessment and from our close monitoring of the Center.

Findings

1. *Quality.*—The quality of the Center's products is high.

Extensive field involvement in the development of products contributes significantly to the relevancy of the products developed.

The product development process is systematic, efficient, and productive.

There is good indication of product impact and utility.

There is concern for broader dissemination of products to a greater diversity of audiences.

The staff appears to be highly qualified, and to bring diverse areas of expertise to the Center.

In terms of the outcomes desired and the potential of the organization, the Center was found to be underfunded.

2. *Management.*—The management system is well organized to efficiently and effectively develop numerous products on a tight schedule.

Management has established, and if maintaining, both an internal evaluation system and a product review and evaluation system to insure quality in the products developed and in the services provided.

An effective communication system is maintained among the staff.

Staff morale appears to be high.

Management has implemented and is maintaining at staff development plan.

Management is using both its staff and fiscal resources effectively.

Consideration should be given to continuing the product review and evaluation system.

3.*Compliance.*—Consideration should be given to using a grant rather than a contract during the next award cycle.

APPENDIX B.—NATIONAL ASSOCIATION OF STATE DIRECTORS OF VOCATIONAL EDUCATION RESOLUTION

RESOLUTION REGARDING PROGRAMS OF NATIONAL SIGNIFICANCE FISCAL YEAR 1982 APPROPRIATIONS BY NATIONAL ASSOCIATION OF STATE DIRECTORS OF VOCATIONAL EDUCATION

Be it resolved that the National Association of State Directors of Vocational Education supports the transfer of $1,000,000 from basic State grants to programs of national significance with the understanding that this amount will be added to the budget of the National Center for Research in Vocational Education. Further, it is resolved that a copy of this resolution be provided to appropriate Members of Congress by the president of the association.

JOE D. MILLS, *Secretary.*

Chairman PERKINS. Thank you for a good statement. The committee will recess for 10 minutes. We have got to vote. Mr. Erdahl and I will come right back.

[Recess.]

Chairman PERKINS. Dr. Hopkins. Go ahead. I appreciate your being here.

STATEMENT OF CHARLES O. HOPKINS, OKLAHOMA STATE DEPARTMENT OF VOCATIONAL-TECHNICAL EDUCATION, STILLWATER, OKLA.

Dr. HOPKINS. Thank you, Mr. Chairman.

I am Charles Hopkins, assistant State director in the State Department of Vocational Education in Oklahoma, and I am also president of the American Vocational Association, and it really is a privilege for me to have an opportunity to tell you a little bit about our program, and some of the recommendations and some of the problems that we have encountered with the legislation.

To highlight the program improvement activities is that I would like to start by saying that we feel, in our State, that the classroom has to be focal of activity, and whatever we do has got to end in the classroom.

So, the things that I would like to cover deal with those aspects, and I will highlight them.

We put a considerable amount of effort in the instructional material in our State, because we think that to get quality vocational training to meet the needs of employers, we are going to have to get the product into the classroom, and instructional material is one of the ways we would do that.

So our development activities, we use industrial input, we use educators, teacher educators, and State supervisors with a great deal of emphasis currently with the representatives of business and industry that tells us what kind of curriculum that we ought to develop.

Then a curriculum rider will develop that curriculum, will support it with media, we will have profiles, which is attached to the information we have provided, which, upon completion of the training program, we would hope to show what a student can do.

So that has been our primary effort in curriculum. We also belong to two consortiums, the Mid-American Curricula Consortium, where there are 10 States involved. We also belong to the State occupational—I am sorry, Secondary Occupational Competency Achievement Test Consortium, where six States are involved, we are developing tests. We are also the coordination center for the Midwest Curriculum Network.

And all of this, the thing that we are trying to do is to be able to share and to gain more information from what is already being developed in a cooperative effort with other States, because through a cooperative effort, we know that it is much cheaper than us doing it ourself.

Our basic philosophy is that we don't want to develop any instructional material that is already available, that is of the content and the quality that we can use in some other State. So we do try to do that.

In our research, based upon the amendments that were passed in 1976, is that we have primarily used a research effort to look at field testing the information that we have been developing to see that it does represent accurately the things that ought to be taught in the classroom.

So, most of our research effort, which we have developed the capability in-house to deliver, has been along these lines. So, field testing of the competency achievement test, and field testing the curriculum materials have been two efforts that we have spent a considerable amount of time.

Another thing that we are currently doing that I feel probably is the most significant thing that we are doing at the present time, is that we are establishing a competency evaluation system, and this is where we are using three different efforts through our curriculum department, our research effort and our evaluation unit in trying to look at a process by where we can measure what a student has actually learned upon completion of a training program.

And then, if they did not learn, were there some deficiencies in the program that caused them not to, such as was there a deficiency in the teacher; was there a lack of equipment; was there a lack of consumable supplies; were there a lack of training stations?

And so learning is the basis of what we are looking at, and what is not in place if learning did not take place. And I might tell you, that is a very interesting concept. We just field-tested it in 10 programs. It looks extremely promising to help us direct resources and to improve our training programs.

Some other projects, naturally, that we do have dealt with the cooperative versus noncooperative teaching, the sex bias and stereotyping, the Office of Civil Rights desk audits and adult teaching practices, to try improve that.

We primarily had two efforts going. One of them has dealt with increasing the participation of adults in rural areas, where we have not had a lot of participation, and the programs were successful to the extent that they have been carried on after exemplary funds have been withdrawn from the training programs.

The other product that we are working on at the present time is a very innovative and interesting project which deals with trying to develop a capability in a rural southeastern area of our State to establish new businesses through a new product or a new idea, where we are losing most of our young, trained people that exit from that because there are no jobs available.

Large industries won't come in, so the only way that we think that we can develop that is with trying to establish a new business through a new idea, a new product, and this is taking place by introducing the students to the free-enterprise system, through trying to get them to explore an interest in operating their own business.

We have industrial incubators built on three campuses in an area voc tech district. We will train the work force, train the manager, go to production standards, get the venture capital that is necessary to establish the business, and then exit that business into the private sector so we can try to employ our young people.

Personnel development kind of goes right along with curriculum development. If we are really going to have quality vocational instruction, is that we have got to develop all the personnel that are involved, and particularly the teacher.

So we spend a great deal of our time trying to in-service our teachers to keep up with the technology, to utilize the curriculum material, and to use the innovative teaching techniques that are available to them.

In the sex bias and sex stereotyping, we have done some projects, but not to the extent that I can report to the committee that we have made significant inputs in enrollment.

In guidance and counseling, we have two primary activities that we are trying to do because of our rural area, and our rural State, is that we have either four vocational guidance counselors in the rural areas, or no counselors at all.

So we are doing this through mobile careers programs, where we have programs in vans, and we actually go out and reach students, or we are doing with a volume of information in educational work which we provide career information to the students in almost every program that we have in the State of Oklahoma.

Some of the problems that we have encountered with the 1976 legislation are these: When you look at the set-asides that are mandated under the 1976 legislation, you will find that 45 percent of the subpart (3) funds are automatically taken off the top.

Then when you use 20 percent for guidance and counseling, and the amount of money for administrative support, there are very little funds left to adequately provide the concerted services in research, curriculum development, personnel development and exemplary.

So we feel that it would be—if we are going to have a program improvement section, then the set-asides, it may be expedient, but it may not be the best way to handle the amount of money that we want for our targeted population.

The legislation has a 5-year impact that, we agree with Dr. Taylor in his statement, is that the 5-year impact may not be a good stipulation in the law, because, in looking at the research effort that has to be done and a curriculum that it is difficult to measure the 5-year impact.

The contracts has dealt as much trouble with the provision in the current legislation for us as it has the Center, and we would like to see that to have basic grants—I am sorry, grants and cooperative arrangements as well as contracts as part of the new legislation.

The emphasis for new legislation, we feel, ought to start looking at the technologies that has happened in this Nation, is that with the increase in technology, with our trade arrangements that we have in international trade, and with the demographics, is that we are going to find lots of displaced workers, because technology is changing that.

So we would like to see, in the new legislation, stipulations that help us to train these displaced workers. Also, Mr. Chairman, is that the indications are that technology is going to change people's jobs every 3 to 4 years.

So we are going to see the same people reentering the work force three or four times in different occupations because of their displacement because of technology. And this means that vocational education or someone is going to have to provide the training if these people are going to be displaced.

We have found that, currently, firms know technologically what is happening and where they are going, but they don't know how to transfer that technology that they are bringing into their plants to the work force to the training process.

So they are looking for vocational educators to help them to train the work force once this technology has been adopted and is trying to be implemented.

We know that we have got to regain the competitive edge in productivity, and that is basically two ways. It is, No. 1, to improve the management techniques and to improve the ability to keep up with the technology, so that we can have a product produced cheaper.

So, vocational education is going to have to look at a lot of research to help us to be able to know what are we to do. And then we are going to have to look at the inservice training for all the people that are involved to be able to teach the productivity kinds of things that we want to transmit to the populations that we are serving.

If you look at career guidance in the future, that if people are going to be displaced, and that if technology is coming into focus, then we are going to have to do a better job with career guidance than ever before.

We are going to be dealing with an older population. We are going to have to be able to do a better job of transmitting the aptitude and the abilities of people to the technological requirements that is going to be required in the work force.

The cost of equipment is something that is becoming almost prohibitive in certain areas for vocational education to keep up with technologies. So we think that the utilization of business and industry as a training place is something that needs to be researched and examined, and then we are going to need considerable amount of dollars to keep our equipment updated.

I think that we need to place greater emphasis on equity issues, and when I am talking about equity issues this morning, I am talking about disadvantaged, handicapped, minorities, sex bias, sex stereotyping, the whole gamut.

I am not sure that set-asides is the way to handle the equity issues. It is expedient, but when you are really looking at it, is that it maybe needs to be a new title in the legislation, and targeted in order for us to be able to raise or lower the appropriations as we have a need to address the equity issues and they are national priorities and concerns.

We think that the new legislation ought to address comprehensive planning and program improvement, and it ought to be tied to our national priorities, it ought to flow from the National to the State to the local level, and the planning document ought to be the mechanism that we do that.

We think that research ought to be more publicly institutional base rather than private. We know that private firms has done considerable amount of that, but yet we are not using it in the States, or in the local levels, and we would encourage that the public institutions be more involved in the research of the future.

If I can make specific recommendations, they would be these:

We would like to see State and local programs have a research component, that is both applied in a new knowledge base for research.

We would like to see funds in program improvement be directed toward curriculums. We think that these ought to be competency based and performance tested. We would like to see exemplary or innovative approaches or methods, and that is to improve the delivery of vocational education to the national concerns and needs addressed in the new legislation.

We would like to see guidance and counseling activities that would stress the career counseling and the ability to use labor market information and continued provision direct students in the programs without regard to race, sex or handicap.

In personnel development, we would recommend that we use the funds for recruiting students, inservicing to update teaching skills related to new technologies, inservice to improve teaching techniques, inservicing to utilizing updated instructional material, leadership activities for our leaders in vocational education, provisions to develop inservice administrative and support service personnel.

Programs of national significance that we would recommend would be a National Center for Leadership and Development; a modified vocational education data system; institutes for new knowledge development; individual projects and awards to be granted by—as discretionary by the Department of Education; Curriculum Coordination Centers; an occupational data system, which major emphasis would be upon a standardized demand, and that the demand information will be current and relevant.

We would like to see improved planning in the new legislation, and we would like to see evaluation emphasized that would be geared toward competency achievement, and the delivery of quality vocational education training.

[The prepared statement of Charles Hopkins follows:]

PREPARED STATEMENT OF CHARLES HOPKINS, ASSISTANT STATE DIRECTOR, SUPPORTIVE SERVICES DIVISION, STATE DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION IN OKLAHOMA, AND PRESIDENT, AMERICAN VOCATIONAL ASSOCIATION

Mr. Chairman and Members of the Committee, I am Charles Hopkins, Assistant State Director of the Supportive Services Division of the State Department of Vocational and Technical Education in Oklahoma and President of the American Vocational Association. It is indeed a priviledge to have the opportunity to provide testimony regarding program improvement at this hearing.

PROGRAM IMPROVEMENT ACTIVITIES

We in the Oklahoma State Department of Vocational and Technical Education feel that quality training is essential if we are to meet the demands of today's employers. In order to achieve this quality training several components must be in place, with the classroom serving as the focal point.

Curriculum and Instructional Materials

Recognizing the classroom as the center of quality vocational training brings with it the implied necessity for up to date instructors and instructional materials. In light of this, I would like to discuss Oklahoma's commitment to the development and provision of instructional materials for vocational instructors.

When the kinds of materials needed have been established, the development process begins. All our materials are competency based and are developed with input from committees composed of instructors, business and industry representatives, teacher educators and state vocational education supervisors or specialists. Major emphasis is placed upon contributions by the business and industry representatives. A trained curriculum specialist chairs this committee and is responsible for subsequent developmental activities. All curriculum materials are supplemented by visual aids and are currently being individualized into learning activity packages. A competency profile is developed for each curriculum in order that the instructor may document student skill proficiency of each unit of instruction. This profile is also being field tested for use in a new program evaluation system.

Another curriculum activity in which we are involved is the Mid America Vocational Curriculum Consortium (MAVCC). This is a consortium of ten states that establishes priorities for curriculum development, produces these materials and makes them available to member and other states.

Still another consortium with which the Oklahoma Curriculum and Instructional Material Center is involved is the Student Occupational Competency Achievement Test (SOCAT). This is composed of six states and is administered through the National Occupational Competency Test Institute (NOCTI). Tests are developed in selected occupational areas annually and field tested by the participating states.

I might also add that the Oklahoma Curriculum and Instructional Materials Center functions as the Mid-West Curriculum Coordination Center for the nine states within its region.

It should be obvious that we have a dedication to providing our instructors with high quality curriculum and instructional materials. Philosophically we do not want to develop materials that are already available and when this is the case, we use the Curriculum Coordination Centers to assist with their location.

Research

Next, I would like to talk about our research efforts. In Oklahoma we have developed the capability for conducting all our research efforts inhouse. Only on rare occasions do we contract for research.

Again, many of our research efforts have been geared toward the improvement of teaching or curriculum materials. All the instructional materials that have been developed since the 1976 Vocational Amendments have undergone field testing by our research unit. This information has been utilized to improve these materials. All the SOCAT materials field tested have been reviewed by the research unit and recommendations made for improvement.

For the past year the research unit has been assisting with the development of a competency evaluation system, a joint effort among the research, evaluation and curriculum divisions. The primary thrust of this new evaluation methodology has been to determine the degree of competency attained by each student in the specific training program in which he/she was enrolled. An adjunct result of the process is the identification of reasons for failure to learn; i.e., is it the aptitude or ability of the student; lack of equipment, resource materials, or supplies; inadequate training stations; or a deficiency on the part of the instructor?

Other research studies have dealt with cooperative teaching methods versus noncooperative, sex bias and stereotyping, office of civil rights desk audit procedures, and adult teaching or program practices. The research unit is also currently involved with sequencing occupations for use in curriculm development, evaluation and our career information service, Vital Information for Education and Work (VIEW).

Exemplary

Two major exemplary efforts have been undertaken. One involved adult education in rural areas of Oklahoma. This project was designed to assist rural area vocational technical schools in increasing their adult participation in educational endeavors. This was successful to the extent that the programs continued after the exemplary funds were withdrawn.

The second exemplary project is an attempt to develop a program in three rural area vocational and technical schools in the Kiamichi Area Vocational and Technical School district in rural southeastern Oklahoma for the purpose of "incubating" and establishing small businesses. This project is called a National Rural Demonstration Entrepreneurship Project. Initially students are introduced to the free enterprise system and explore the possibility of creating a new business or industry through a new product or process. The area vocational technical school will then train the workforce, including the manager, to production standards. Once this has been accomplished in the industrial incubator, the company can be moved into the private sector with a trained workforce. If it cannot achieve a great enough margin of profit to survive it can be aborted while in the industrial incubator stage. This is a very thumbnail sketch of a project which I consider to be one of the most innovative endeavors undertaken by our State Department.

The establish of small businesses in a rural area that sees most of its young citizens migrate away from the area is certainly with merit. When proven, this model can be transported to any state or location in the nation.

Personnel Development

Because we recognize that quality instruction does not take place without quality instructors, personnel development receives a great deal of emphasis in the State of Oklahoma. It is the philosophy of the Oklahoma State Department of Vocational and Technical Education that teacher training institutions have responsibility for the preservice or original preparation of vocational instructors. Changing technology and instruction techniques create a need for continuing inservicing of the instructors and in some cases administrators. Professional development funds are used for these purposes. Annually, instructors are inserviced in the uses of new curriculum and instructional materials. Teacher training institutions conduct inservice training to update instructors on teaching techniques in rapidly changing technologies such as electronics, data processing, engine analyzers, digital electronics, etc.

An extremely successful approach to the training of potential administrators or educational leaders had been the Administrative Extern program. This is a process by which potential leaders are identified annually and are given a comprehensive development program on elements of vocational education. Professional development activities are also made available to the State Department of Vocational and Technical Education staff in an effort to keep them up-to-date with changing technology and methodology.

Guidance and Counseling

Career guidance has been another priority of the Oklahoma State Department of Vocational and Technical Education. As a rural state, we have many small schools which have poorly qualified vocational counselor or no counselors at all. To fill in these gaps, the State Department provides two career counseling services. Mobile careers projects and Vital Information for Education and Work (VIEW).

The mobile career program is housed in mobile vans that can be moved from school to school. These vans are equipped with the most current career information available and are used to acquaint secondary students with the career options available to them. The department currently has eight of the mobile career vans in operation which serve approximately 30 of the state's 77 counties.

The VIEW program is also a career information program that provides career information through hard copy, microfiche and needlesort cards. This sytem is available in almost every school system in the state and is an excellent source of career information. The information requires annual updating and inservicing on proper utilization. We are currently in the process of replacing the needlesort cards with a microprocessor system which is being adapted to this state's data base from work done by the Michigan State Department of Vocational and Technical Education.

Other guidance activities funded include guidance and career institutes held annually to familarize guidance and counseling personnel with vocational education, labor market information, and careers.

Sex Bias and Sex Stereotyping

We have conducted studies to attempt to identify barriers that prohibit students from enrolling in nontraditional occupations. We are approaching these studies from a longitudinal concept to measure the impact on enrollments and placement. I wish I could report to you that our state had made significant growth in nontraditional enrollments but I cannot. It appears that we still have a great deal to learn about the nontraditional aspects of vocational education.

Although this is not inclusive of all the program improvement activities undertaken by our state, it does provide some highlights of our efforts.

PROBLEMS ENCOUNTERED WITH THE EXISTING LEGISLATION

We, like other states, have encountered some problems with the 1976 legislations. Probably the greatest problem faced is that once set aside and earmarked funds are removed from Subpart 3, there are simply not enough funds left to adequately support services concerted efforts in the area of program improvement or support for the areas specified in the legislation.

Specifically, 45 percent of the program improvement funds are reserved for handicapped, disadvantaged and postsecondary programs and 20 percent is set aside for guidance activities. Next, funds required for administration are taken from the subpart, leaving few flexible funds for use in research, curriculum, exemplary, professional development or sex bias and stereotyping as outlined in Subpart 3 of the legislation.

The legislation also stipulates that any funds used for curriculum or research must have impact on improving instructional materials or teaching techniques in the classroom in a five year period. This covers applied research but does nothing about the new knowledge base that is so essential to vocational education.

Additionally, research, curriculum and exemplary programs may only contract for services. Allocating funds through grants and cooperative arrangements, as well as through contracts would allow for much more flexibility. Although not written into law, federal rules and regulations require that research, curriculum and exemplary projects be administered through a research coordinating unit (RCU). This mandates a false organizational structure in many states. Oklahoma has a structure that places the curriculum, exemplary, and research units on the same organizational level with each reporting to the division of supportive services.

EMPHASIS FOR NEW LEGISLATION

Because of the tremendous demand for skill training, program improvement is critical to quality vocational training. Several aspects relevant to this improvement need to be addressed in the new legislation. As an example, we know that the demographics are changing and we will be training more older workers. Too, the technological changes taking place in our businesses and industries and our international trade arrangements cause workers to be displaced. These displaced workers will need new skills to become reemployed.

Technology is projected to change production practices every three to four years. Each time a change takes place training is necessary to equip the workers with new skills. Development of instructional materials to meet the training needs of the new technology will be required. Firms know where the technology is taking them but a transfer of technological knowledge to the worker is a role they are asking vocational education to assume. Meeting the training needs of business and industry will require vocational education to develop the capability to assess and develop training materials and to train the worker in a short time frame.

We know that we must regain our competitive edge on productivity. To accomplish this, efforts are being made to train toward improved management practices and technology.

Considerable research is going to be necessary to provide vocational educators with the knowledge that results in a trained, productive workforce within feasible budget/time limits.

Vocational educators, administrators and instructors must be taught the new knowledge that is required to meet the productivity challenge and the changing technologies. Personnel development should become a primary focus of new legislation in order to keep vocational training current with the workplace.

Career guidance and techniques must be kept current if we are to succeed in keeping persons informed about the jobs available to them. Technology is changing the career options available to students and guidance personnel must be inserviced or prepared to inform students in a realistic manner of the opportunities available for employment. Too, the counselor must be equipped to know the skill requirements for high technology jobs and possess the ability to match the aptitudes and abilities of persons to these requirements.

The career guidance counselor will also need to be able to serve the adult who is likely to require new training three to four times during his/her employment life because of the displacement resulting from changing technology. The new legislation needs to address this issue.

Cost of equipment replacement resulting from technological change will create a real need to research methods of utilizing business and industry as a training site. Investments in equipment for the classroom is and will become a tremendous cost to vocational education.

Greater emphasis should be placed upon equity issues. Perhaps it would be better to address this as a separate Title in the new legislation, with appropriations targeted specifically to those issues. Set-aside funding is expedient but does not allow allocations to be raised or lowered according to the need. Equity issues should also be addressed when planning program improvement activities.

The new legislation should include comprehensive planning for program improvement tied to national priorities and concerns. This planning process should flow from the national to the state to the local level. Program improvement should be an integral part of new legislation to assure quality training, whether the act has a separate subpart for program improvement or whether it becomes a part of the basic grant structure.

As the new legislation addresses national priorities, funds should be specifically allocated to accomplish these needs. The new legislature should emphasize that reasearch performed be more public institution based. Although private firms have conducted a great deal of the reasearch on vocational education, the results have not been utilized by state and local vocational educators. Public institutions should be required to establish a lower administrative overhead in order to become competitive and realistic in costing out research efforts.

We would like to see improved planning at all levels that address national concerns and priorities. The current legislation has discontinuity between sections 106, 107, and 108. Local planning requirements and funding priorities in section 106 do not match. The state plan requirements in section 107 and 108 do not relate to section 106. We would like to see these sections revamped.

RECOMMENDATIONS

A. State and local

1. State and local program improvement to provide quality vocational education which includes the following:

a. *Research.*—Applied and new knowledge. Continue provisions in new legislation for research to be provided through contracts, grants or cooperative arrangements.

b. *Curriculum.*—Funds to be used to develop new and update existing materials and for their dissemination. Emphasize need for competency standards and performance testing.

c. *Exemplary or innovatice approaches or methods.*—Development of new approaches or methods to improve the delivery of vocational education to meet national concerns and priorities addressed in the new legislation.

d. *Guidance and counseling.*—Emphasize the need for career counseling for all populations. Stress the displaced worker needs and changing work patterns resulting from rapidly changing technology. Utilization of labor market information and counseling of students into training according to their aptitude and ability. Continue provisions to direct students into programs without regard to sex, race or handicap.

e. *Personnel development.*—Provisions should be made to provide qualified vocational instructors, administrators and support personnel. These provisions should include but not be limited to the following activities: (a) Recruiting instructors; (b) Inservicing to update teaching skills related to new technologies; (c) Inservicing to improve teaching techniques; (d) Inservicing to utilize updated instructional materials; (e) Leadership activities to prepare leaders in vocational education; (f) Provisions to develop and inservice administrative and support personnel.

B. Programs of national significance to meet national concerns and priorities with funding level not to exceed 5 percent of funds for program improvement. Funds to be forwarded through contracts, grants, and cooperative arrangement.

1. A national center for research and leadership development.

2. A modified vocational education data system to provide the essential data for national policy decisionmaking.

3. Institutes for new knowledge development: These institutes should provide for the development of new knowledge to improve the delivery of vocational training as it relates to national priorities and concerns.

4. Individual Projects: To be awarded through contracts, grants or cooperative arrangements to both public and private institutions or firms that relate to national priorities and concerns.

5. Curriculum Coordination Centers: Stress coordination for adoption and adaptation of already developed instructional materials.

6. Occupational Data System: Continue to fund a system to provide occupational information with the major thrust of a standardized demand system that is current and relevant.

C. Improved Planning: Provisions that address national priorities and concerns at both the state and local levels that are comprehensive in nature.

D. An evaluation system that measures the impact and quality of vocational training to meet national priorities and concerns.

1. Competency achievement: States should attempt to measure the competencies achieved by persons enrolled and identify the elements that are missing if learning is not taking place.

2. Delivery: Direct funds to achieve quality delivery of vocational education, i.e., instructional materials, equipment, consumable resources, training stations or instructor inservicing.

APPENDIX A

SUMMARY OF OKLAHOMA SECTION 130 FEDERAL EXPENDITURES

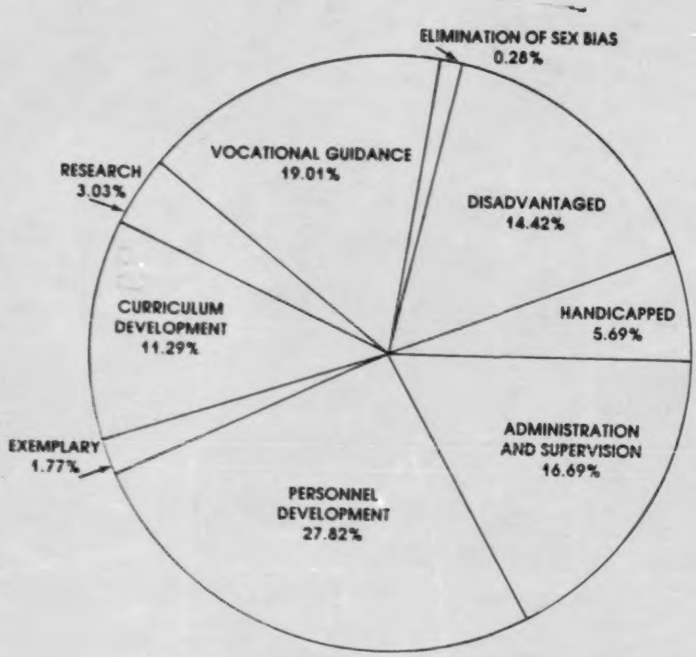
1978-1982

	1978	1979	1980	1981	1982*	Total	% of Total
Handicapped	67,547	86,547	131,074	101,110	50,000	436,278	5.69%
Disadvantaged	386,125	194,145	232,899	135,195	157,032	1,105,396	14.42%
Elimination of Sex Bias			6,913	9,676	5,000	21,589	0.28%
Vocational Guidance	256,747	308,684	322,061	309,014	260,000	1,456,506	19.01%
Research	31,839	28,413	64,788	47,170	60,000	232,210	3.03%
Curriculum	85,690	163,252	364,596	176,352	75,000	864,890	11.29%
Exemplary	10,702	**	**	**	125,000	135,702	1.77%
Personnel Development	249,543	408,022	562,583	651,389	260,200	2,131,737	27.82%
Administration & Supervision	192,853	217,921	263,275	304,901	300,000	1,278,950	16.69%
TOTAL	1,281,046	1,406,984	1,948,189	1,734,807	1,292,232	7,663,258	100.00%

* 1982 Figures are Projected Expenditures as displayed in the FY 82 State Plan.

SECTION 130 FEDERAL EXPENDITURES BY PURPOSE OKLAHOMA

1978-82



PERSONNEL DEVELOPMENT	$2,131,737	HANDICAPPED	$436,278
VOCATIONAL GUIDANCE	$1,456,506	RESEARCH	$232,210
ADMINISTRATION/SUPERVISION	$1,278,950	EXEMPLARY	$135,702
DISADVANTAGED	$1,105,396	SEX BIAS	$21,589
CURRICULUM DEVELOPMENT	$864,890	TOTAL 130	$7,663,258

DETAIL OF OKLAHOMA SECTION 130 FEDERAL HANDICAPPED EXPEDITURES

1978-1982

	1978	1979	1980	1981	1982*	TOTAL
State Administration of Handicapped Programs	2,741	3,365	3,341	3,101	4,600	17,148
Local Administration of Handicapped Programs	4,051	1,961	102			6,114
Inservice Training	10,872	8,337	11,575	13,194	11,000	54,978
Vocational Guidance for Handicapped Students	23,869	46,124	82,800	84,815	19,400	257,008
Media Centers	26,014	26,760	33,256		15,000	101,030
TOTAL	67,547	86,547	131,074	101,110	50,000	436,278

* 1982 Figures are Projected Expenditures as displayed in the FY 82 State Plan.

DETAIL OF OKLAHOMA SECTION 130 FEDERAL DISADVANTAGED EXPENDITURES

1978-1982

	1978	1979	1980	1981	1982*	TOTAL
State Administration of Disadvantaged Programs	5,482	6,730	6,682	6,203	9,200	34,297
Local Administration of Disadvantaged Programs	9,887	4,422	918	3,026	5,600	23,853
Inservice Training	16,820	19,022	26,744	28,953	20,000	111,539
Vocational Guidance for Disadvantaged Students	106,025	39,008	41,767	97,013	60,000	343,813
Media Centers	247,911	124,963	156,788		62,232	591,894
TOTAL	386,125	194,145	232,899	135,195	157,032	1,105,396

* 1982 Figures are Projected Expenditures as displayed in the FY 82 State Plan.

DETAIL OF OKLAHOMA SECTION 130 FEDERAL PERSONNEL TRAINING EXPENDITURES

1978-1982

	1978	1979	1980	1981	1982*	TOTAL
Pre-Service Training	191,860	189,160	189,000	256,361	180,200	1,006,581
Inservice Training	57,683	218,862	373,583	395,028	75,000	1,120,156
Energy Conservation and Emerging Occupations	____	____	____	____	5,000	5,000
TOTAL	249,543	408,022	562,583	651,389	260,200	2,131,737

* 1982 Figures are Projected Expenditures as displayed in the FY 82 State Plan.

Chairman **Perkins**. Thank you very much for an excellent statement, Dr. Hopkins.

Dr. Ronald McCage, we will hear from you now.

STATEMENT OF RONALD McCAGE, DIRECTOR, VOCATIONAL-TECHNICAL EDUCATION CONSORTIUM OF STATES, SOUTHERN ASSOCIATES OF COLLEGES AND SCHOOLS, ATLANTA, GA.

Dr. **McCage**. Thank you, Chairman Perkins, and members of the subcommittee for the opportunity to be here. I am Ron McCage, director of V-TECS, which is part of the Southern Association of Colleges and Schools in Atlanta.

For roughly 9 years, I was a State Director of Research and Development in Illinois, and ran a RCU that I think implemented the intent of the 1976 amendments. And I feel that within that context, I have firsthand experience in terms of some of the things that we need to deal with within the legislation relative to program improvement.

A part of that RCU function in Illinois was also administrative agency for one of the six curriculum centers that Dr. Worthington and others have mentioned in their testimony, and have had the tie-in also with that network and work closely with the National Center and other things.

Basically, in addition to that, I am heavily involved in a U.S. Army Reserve program as an instructor in the command and general staff, and I would like to state that I am here today courtesy of the U.S. Army, because I am actually on active duty right at this moment.

I would like to start by just citing a personal type of thing, I think that ties in, maybe sets the stage for why program improvement, why a Federal role, a State role, and a local role in program improvement. And I think that is a major question that many of us ask.

When I was about 9 years old, my dad became a used-car dealer in Murray, Ky., which you would be familiar with, and by the age of 12, 13, I was very skilled in terms of auto-body repair, and still do some of it today as a hobby.

But the point I want to make is that at that point in time, with the technology of that day, I was competent in the trade. Today, if I had to go teach that trade, even though I have many years of experience in education, from a teaching perspective and so forth, I would not be competent to go back to that.

I don't know the competencies of the skills that match with the technology today. On the other hand, my brother stayed in that business. He knows the trade, he would not know how to deliver it.

And I think within these two contexts, really bring out two of the major things that—problems in terms of vocational education. Quality instructional programs really deal with two elements. And research and the other things that we are talking about really contribute to that.

Quality instruction means that we have got to have quality materials that are based on the occupational areas that we are dealing with. They also mean that we have to have trained teachers that know how to deliver that.

And within the context of what program improvement is at the State level, I think that, in a sense, are two of its major focuses.

The other thing I would like to point out is that today I work for V-TECS, which is an organization of States that, like the mid-America consortium that Chuck Hopkins mentioned, is simply a group of States that went together in 1973 to do task analysis and curriculum development together.

And the basic idea of the consortium is to utilize the resources of all of the States for the benefit of all. And basically, what each State does is contribute to the consortium, and also develop two products a year which go back into the consortium.

And really, by investing $1, we will say, they get that dollar back times the number of members in terms of products. And the key thing that they are addressing is this: In the job market that we are dealing with today, there are over 20,000 job titles.

In our school systems, we have about 340,000 teachers, roughly 20,000 training facilities throughout the United States in the public sector alone. Basically, when you go and try to identify the content in what the program areas are, there is no one State that has the capability of doing it alone.

And I think the key point that I want to make from experience with V-TECS, and I have left some materials and samples, but basically what the organization does is go in the industry, ask and observe the worker concerning what they do, verify that through a survey process, and put that in the form of performance statements, or as Chuck mentioned, competencies.

And from that, our organization or other States, or other organizations, can develop programs. And through that kind of an effort, we maximize on the dollars that are spent.

Turning really to the program improvement aspects at the State level, I would like to say that in terms of the structure that we have, the State RCU's, the curriculum network, the National Center, our university system, the consortia type activity that I have mentioned, I frankly believe that in vocational education we have the elements for the best program improvement function in education.

Like any function, there are ways in which you can improve it. And I guess if I would have any one message, is that let's don't destroy that system, let's look at its strengths and weaknesses, and maximize on it, and fine-tune it to the point that it is capable of delivering for the country as a whole.

I would endorse almost everything, I think, or everything that has been said relative to national programs. And I, in the paper that I have presented, I spend a considerable amount of time really on national programs, but I think you will find that within that, basically we carry the same message.

I guess there is three or four things that I really want to stress. No. 1, we need to differentiate and define within the legislation, or the purposes of that, the differences between the role of program improvement at the Federal level, national level, and local level.

Program improvement technically is defined as research, exemplary and curriculum development, from the 1976 amendments. And of course, supportive services includes the personnel development, guidance and sex equity, which is all of the subpart 3.

Basically, there is a second element of program improvement that is emerging in terms of the definition that causes some confusion, but I think it really needs to be stressed, and that is the program improvement aspect that we deal with at the local level.

And we have dealt for years with the national level and State level, and I think we need to continue to define those roles, but I think for vocational education to really be quality, the major focus of the new act, or new amendments needs to be on program improvement at the local level.

And I think all of those levels tie together. There is no separation of purpose within that.

The second thing from the act itself, I think in general, the 1976 amendments allows both the Federal and the State agency to do almost any conceivable activity they would want to do in terms of program improvement.

The problem is there are two or three technical-type things within the law that greatly restrict both the Federal level and the State level in administering it. They have already been highlighted. One is the contract-only mentality.

And I think that some of us were responsible for helping get that in there, and I think the intent of getting it in there was, in a more generic sense, and that was of accountability, and buying something that would address the needs of vocational education.

What has really happened is that contract has been interpreted from a procurement perspective, and has really destroyed the intent of the accountability aspect. And therefore, I think that is why we see the recommendations perspective as well, we need more flexibility in terms of how you manage the program.

Contracts are good for procurement purposes, but for some of our purposes, we need, also, grants and cooperative arrangement or agreements, as they are defined.

The impact statement has been mentioned. Basically, I concur. I think that all of us that have cooperated in the system are very supportive of accountability. The problem is is that if you apply the impact statements, especially to research, you have the effect of forcing your States to primarily do product-oriented activities, because products can be measured in terms of the outcome.

The second point I would make is that we need to realize that to do R&D, there is two or three elements that have to be there. And one is continuity. And that good R&D is a phase type operation. It starts with the setting of priorities, moves into a research and assessment of the state-of-the-art.

In other words, identifying the problem; moves into developmental phase; and then moves into exemplary activities, which demonstrate professional development activities, which train, et cetera.

And that loop has constant feedback and evaluation that feeds back into priorities. And activities like Chuck has mentioned in his testimony take 2, 3, 4, and 5 years sometimes to really go through a good developmental cycle.

And so I think we are not against accountability. It is primarily the point that if you literally interpret the law, it is virtually impossible to really apply the statement in terms of measuring.

The other thing that I would say from a State perspective is that there is an emphasis in the legislation which infers that program improvement should be managed by the RCU, and I think basically what we would promote is that good program improvement needs coordination and planning and focus, should be based on a priority system and that the legislation itself should not dictate State structure.

Now, I happen to be an RCU that fulfill all of that function, but I have seen other States that have it separate and operate just as well within the context of the legislation.

So, basically, from that point of view, I think that emphasis needs to be made. One other point that I would make, and then I will close is basically this: Is that the allocation of program improvement is 20 percent of the basic State grant as it stands now.

I think the basic State grant and program improvement should be, in a sense, merged. I also think that there is one aspect of the distribution that needs to be strongly looked at, and that is this:

That if you go strictly on a 20-percent formula, the very small States—and I am talking about small in terms of CETA dollars and level of programs—get a very small portion of the money.

And within that, they can't be a linkage element with the National Center and so forth. And so, I would strongly urge that there be a minimum in terms of program improvement that would allow those States to at least have a minimum operation, and then a formula-type thing, if that be the desire.

Overall, there is three emphasis that I think need to permeate the future legislation. And, obviously, in this time, the first one is not popular. But I think one is vocational education needs increased funding across the board.

The second one is that if congressional intent is to impact on special needs populations, adults, whatever category; in other words, if you have a priority, make it a priority in the law and allow the States to use up to 100 percent to do that.

The matching requirements and set-asides really restrict the capability of doing that.

The third one is that I think program improvement at all levels, Federal, State, and local is crucial and should be dealt with in the future legislation, and defined in that context.

I thank you for the opportunity to be here.

[Material submitted by Ronald McCage follows:]

PREPARED STATEMENT OF DR. RONALD D. MCCAGE, DIRECTOR, VOCATIONAL-TECHNICAL EDUCATION CONSORTIUM OF STATES

INTRODUCTION

Chairman Perkins and members of the subcommittee, I am Ron McCage, Director of the Vocational-Technical Education Consortium of States (V-TECS), Southern Association of Colleges and Schools in Atlanta, Georgia. Today I have been asked to address the topic of vocational education program improvement from a state and local perspective. My two years experience as a high school teacher, three years as an university instructor, nine years as the RCU Director in Illinois and two years as Director of V-TECS should make me well qualified for this assignment. In today's presentation I shall depart from the traditional mode of writing a "Ron McCage" statement. Instead, I am providing the Committee with a compendium of reports and documents that represent the majority viewpoint of those dedicated individuals working in program improvement at the state and local level. The main points in my verbal testimony will represent the essence of what these documents say.

The major text of my written testimony is taken from the American Vocational Association Legislative Task Force Report on National and State Program Improvement. Also included is the official statement of the American Vocational Education Research Association of which I am the current President. In addition, I have taken the liberty to include a copy of the executive summary of a paper that I prepared for the National Center for Research in Vocational Education entitled, "Managing Program Improvement: One State's Approach." This paper describes the manner in which the Research and Development Section, Department of Adult, Vocational and Technical Education, Illinois State Board of Education has implemented the true intent of the 1976 Amendments. The Committee Staff will be provided with a copy of the paper.

VOCATIONAL EDUCATION PROGRAMS OF STATE AND NATIONAL IMPROVEMENT: MAJOR LEGISLATIVE POLICY ISSUES—A REPORT OF THE AMERICAN VOCATIONAL ASSOCIATION POLICY TASK FORCE, MARCH 1980

(Prepared by Ronald D. McCage, Catherine Batsche, and Chester K. Hansen)

PREFACE

Since the Smith Hughes Act was passed in 1917, various elements designed to effect program improvement have been included in almost every piece of legislation enacted by Congress for the support of Vocational Education. Like most legislative elements that have been around for over half of a century, the concepts have undergone many changes and refinements. The most significant changes have occurred during the last fifteen years through provisions of the Vocational Education Act of 1963 and its major subsequent amendments of 1968 and 1976.

The concept of Program Improvement and Supportive Services was legislatively defined in Public Law 94-482, The Education Amendments of 1976. Program Improvement was defined to include the components of research, curriculum development, and exemplary and innovative programs. Supportive services were defined to include personnel development, guidance and counseling programs, and grants for the elimination of sex bias and sex role stereotyping. The Act specifies that twenty percent of the vocational education funds allocated to a state are to be used for Program Improvement and Supportive Service activities. Five percent of the congressional appropriations for Vocational Education are to be used for Programs of National Significance.

In March, 1979, the American Vocational Association formulated a task force to study the issues involved in the concepts of National and State Program Improvement and Supportive Services (hereafter called Program Improvement). The purpose of this task force was to review the Program Improvement aspects of Public Law 94-482 and to: (1) ascertain their effectiveness in the field; (2) gather input for the improvement of future legislation; and (3) make policy recommendations that would result in Program Improvement activities becoming a more viable and integral part of vocational education.

The task force was composed of the team leader, nine team members, a special consultant, and a team leader assistant. The task force membership included representatives from local education agencies, universities, Research Coordinating Units, State Departments of Education and the National Center for Research in Vocational Education. The committee met three times to identify economic, social and program improvement issues of national prominence and to study the implications that these issues have for the improvement of vocational education programs and services. Each member of the task force was given individual study assignments to investigate. The findings were reported to the entire task force for discussion, clarification, and consensus. In addition, input was obtained from the participants at two State Director Conferences, the National Curriculum Coordination Center Director Conference, the Southwide and the National Research Coordinating Unit Association Annual Conferences, the American Vocational Association Convention and from other sources. This paper represents the findings of the committee and its recommendations. The leader of this task force would like to commend the members for their outstanding contributions and participation during this process. Above all they should be commended for the professionalism they demonstrated when discussing and making decisions on controversial and sensitive issues.

INTRODUCTION

The concept of Program Improvement has always played a major role in ensuring that vocational education is capable of responding to the emerging needs of the learners and of the work force of this nation. It must continue to do so. Vocational education is not a static event. The changing posture of the economy, technology, and world of work demand that vocational education have the capacity to plan for systematic program change.

Increasing emphasis is being placed on providing equal access to all aspects of education. The assurance of access and equity within all vocational programs and the provision of adequate supportive services designed to meet the special needs of all individuals such as the disadvantaged and handicapped make it clear that every element of the population is to be served in increasing proportions. Vocational educators are expected to make a significant contribution toward the solution and resolution of some of the economical and social problems that face this nation. In order to continue to respond to the needs of a constantly changing population, the field of vocational education must have an inherent and integral capability to improve the quality of its programs and services.

There are a number of conditions which have uniquely converged upon this nation at this time which makes the job of providing quality career oriented vocational training much more difficult than ever before.

These conditions include, but are not limited to:

A postwar baby boom which has resulted in an unprecedented number of persons reaching employment age and entering the labor market in the 1970's and early 1980's. The transformation of this age group into an adult society in the 1990's is predicted and will constitute a distinct new challenge for the education and employment communities.

A large number of women entering and reentering the labor force who are now competing for the jobs available.

The introduction of several new laws and changes in attitudes concerning retirement age and age related bias and its associated problems creates an added dimension.

An oversupply of college graduates who in many instances have displaced graduates of vocational programs.

A lower number of young people who are involved in the military.

A higher level of youth unemployment, especially among the minorities creates the need for alternate solutions.

A higher level of dropouts from high school, especially among the minorities creates the need for alternate solutions.

A larger number of alien workers that replace citizen workers.

An increase in income transfer programs and the potential disincentive they provide to job seeking and retaining behaviors.

The deficits in the international balance of payments with the attendant loss of domestic jobs.

An increased displacement of major production industries which result in workers without jobs and communities without revenue bases, e.g. movement from the inner city to the suburbs, from the northern snow belt to the southern sun belt, and from the United States to foreign countries where labor costs and taxes are lower.

These conditions, when coupled with the ongoing need for programs and services, have brought about several significant economic trends and social issues that impact on our ability to operate a quality vocational education system and/or adversely affect the quality of life in this nation. These conditions create the need for a higher level of coordination with CETA and other work programs to maximize on all available resources that can be applied to serving the needs of all people.

Given a nation that is currently faced with double digit inflation on the one hand and a decrease in productivity on the other, new ways must be found to conserve natural resources, such as energy, while simultaneously obtaining more efficient and effective output from those in the work force. In a society in which both husband and wife are probably to be found in the work force in ever increasing numbers and with an economy that is turning toward an orientation service as opposed to an orientation of production new ways must be found to create jobs and to train people to own and operate their own job creating businesses.

A multiple need for training is created when an industry moves from one location to another or expands an existing operation. In the first situation, workers are displaced which contribute to the development of a depressed community and to the need for the retraining of workers. In the second situation, a dual demand is created for trained workers in new occupation areas in the new community. Both situations result in the need for a highly responsive vocational education system that is capable of initiating new programs on short notice or that is capable of expanding and/or improving existing programs to accommodate the needs of the community. The changes in demographic patterns from today's youth oriented society with high employment potential to an adult oriented society of high unemployment has saddled us with the challenge of having to deal with today's problem while planning and making adjustments for tomorrow.

Obviously, these concerns involve all public sectors and are beyond the sole control and resolution of those in vocational education. However vocational education has the potential to make a significant contribution to the necessary intervention strategies. In order to make optimum contributions, present efforts in vocational education will need to be expanded and new thrusts never before dreamed of need to be initiated.

For vocational education to begin to make the contribution that it is capable of, there will need to be three major actions taken at the federal level:

(1) A significant increase must be made in federal support that is directed toward keeping the present system current and at providing a reasonable share of the regular program support. This will help keep the federal, state and local partnership in balance.

(2) A change in Legislation must be made so that funds can be targeted to provide up to 100 percent of the costs of programs and services that are necessary to reach the "hard to reach" and "hard to serve" special populations of in-school and out of school youth and adults.

(3) Increased emphasis and support for those elements of program improvement that are designed to provide research and development activities directed at providing new and improved curriculum, model programs, personnel and teacher training programs, institutional capacity to train personnel, supportive services such as guidance and counseling, equitable program access, and adequate evaluation and assessment necessary to support sound decision making and policy development.

The simple provision of funds for these purposes is not enough. Along with the funding must come provisions for the management and coordination of the elements and the resources of the system. Resources should be directed at priority areas of concern so that outcomes can cause change at the intended level for the targeted population. Such a system must be built on the concept of comprehensive planning at the federal, state and local level. It must be a system that is responsive to the needs of the field, that operates from a priority base and that provides for applied research and development from which planning and decision making can emerge.

Program improvement activities seem to be the logical starting point for the evaluation of existing vocational programs and the development of new instructional processes. Program improvement activities can provide the deliberation and planning necessary to increase the likelihood of a successful response to national priorities. Program improvement activities can address these societal concerns by targeting research, curriculum development, exemplary and personnel development activities on areas such as the following:

(1) Development of entry level job training programs, curriculum materials and teachers to serve persons with limited basic skills and limited English-speaking ability.

(2) Identification and/or development of training programs of varying lengths and intensity for advanced technical workers.

(3) Provisions of personnel development activities to update programs and the expertise of vocational teachers to correspond to emerging occupations for technological change.

(4) Development of collaborative program and delivery models among business, industry, labor and education.

(5) Provision development and evaluation of model vocational training and retraining for special populations such as the displaced worker, the handicapped, the unemployed youth, and minorities.

(6) Generation of job creation attitudes and skills in programs.

(7) Conduct of research assessment and evaluation activities that show the relationships between such things such as worker mobility and training needs, how demographic changes affect program needs and the collection of information upon which policy changes can be made that affect Vocational Education for the next decade.

(8) Development of new program models and materials that achieve equal access and sex equality goals.

The issues and concerns listed and discussed here are in no way meant to be an exhaustive list of the problems facing vocational education. The list could be virtually endless. The major point being at present the capability of vocational education is limited in its inherent ability to provide the programs and facilities necessary to meet today's demands. Present legislation and levels of resources available contribute to this condition. In like manner, program involvement dollars are also limited since they are allocated as a set percentage of the total dollars available.

Given the increased demand for programs and the increased demand for improvement in the quality of programs, curriculum and personnel, it will be difficult for vocational education to respond adequately to national concerns without increased federal financial support of program improvement activities. "State and local jurisdictions have continued to increase their contributions for program maintenance, program expansion and program improvement. This speaks positively for their assessment of the efficacy of vocational education. There is an urgent and long overdue need to reassert the federal partnership and leadership role in vocational education through an equitable federal level investment."

The remainder of this paper will focus on two topics: (1) The current capacity of the Program Improvement System nationwide; (2) The major issues and recommended actions for future legislation, and (3) New thrusts not previously included in the program improvement context of this discussion.

CURRENT CAPACITY FOR PROGRAM IMPROVEMENT

Background

Elements of what is now commonly referred to as program improvement and/or supportive services have been present in almost every form of federal legislation designed for support of vocational education since the passage of the Smith-Hughes Act in 1917. Beginning with Smith-Hughes, Congress stipulated that a percentage of the federal funds allocated for vocational education would be used for the development of personnel to work in the area of vocational education covered by the new Act.

In 1963, Congress changed the basic premise upon which it provides its support for vocational education from that of a program base to that of developing programs and services based on individual and/or community need. This change had the effect of making vocational education universal in terms of the numbers and types of training options that could be developed and operated. In instituting this change, Congress also recognized the need to provide a formal research and development capacity to the field. This line of thinking inspired Congress to provide a grants program for the support of vocational education research. This provision marked the first time that dollars had been specifically identified for vocational education research and development. Also included in the Section 4C Provision was a stipulation that allowed state departments and universities to apply for funds to establish a Research Coordination Unit (RCU) in each state. By 1967 every state had applied for and established a Research Coordination Unit. It was also in 1963 that the initial funding was provided for what is now The National Center for Research in Vocational Education.

When the 1968 Amendments to the 1963 Act were passed, Congress made research and development an integral part of the legislation by including line item categories for equal support of a federal and state research program. This research program included permanent support for the RCU concept, equal support of a federal and state exemplary program and a federal curriculum development program. Simultaneously, vocational education personnel development support was being provided through three sections of the Educations Professional Development Act (EPDA). In reauthorization of vocational education legislation in 1976, Congress responded to the criticisms of the Committee on Vocational Education Research (COVER) and others by consolidating several categorical line items and by absorbing selected provisions of EPDA within two subparts of the Public Law 94-482, Education Amendments of 1976.

Thus, the concept of Program Improvement and Supportive Services was legislatively defined in Public Law 94-482, The Education Amendments of 1976. Progran Improvement was defined to include the components of research, curriculum devel opment, and exemplary/innovative programs. Supportive services were defined t include personnel development, guidance and counseling programs, and grants for the elimination of sex bias. Twenty percent of the vocational education funds allocated to a state must be used for Program Improvement and Supportive Services activities. An amount equal to five percent of the congressional appropriation for vocational education were to be used for Programs of National Significance.

To be more specific Congress provided Subpart 3—Program Improvement and Supportive Services for state support of research to include the RCU, exemplary and innovative, curriculum development, guidance and counseling (a new addition), personnel development (drawn from EPDA) and grants for elimination of sex bias and sex role stereotyping. Under National Programs, Congress provided Subpart 2—Programs of National Significance which included national level support of the same six items listed under State Programs, provisions for the National Center for

Research in Vocational Education, the fellowship grants for vocational leadership development and vocational certification in needed areas and for the National Coordinating Committee on Vocational Education Research. Congress also attempted to tighten controls on the management of the research and development functions by limiting certain programs to a "contracts only" mode of funding and by requiring that all research and development outcomes be designed for use in the classroom within 5 years of the termination of a contract. Added to these provisions were several items requiring coordinating of planning and operation of research, exemplary and curriculum. Some of these changes have provided for improvement while others have hampered the progress of the research system.

It is now time to once again look toward reauthorization of Vocational Education legislation in 1982. The remainder of the section will deal with the present capacity of the program improvement system. The final section of the paper will deal with policy recommendations aimed at improving the system through better legislation. The major focus will be on National and State Program Improvement and Support Services.

CURRENT CAPACITY OF THE PROGRAM IMPROVEMENT SYSTEM

Program improvement has been an implied intent of Vocational Education legislation since its establishment in 1917 with the enactment of the Smith-Hughes Act. Commencing with the Vocational Education Act of 1963, explicit emphasis was placed on the need to develop a nationwide, integrated program improvement effort. Succeeding federal laws (i.e. the Education Amendments of 1968 and 1976) continued to enhance and build upon the establishment of a nationwide program improvement system. In this section several elements of the current capacity of the nationwide program improvement system for Vocational Education will be described.

NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION

In the Education Amendments of 1976, The National Center for Research in Vocational Education was congressionally mandated under the 5 percent set aside provisions for Programs of National Significance. Beginning in fiscal year 1978, the National Center was funded to address problems of national significance through six interdependent functions: (1) Applied research and development, (2) leadership development, (3) data collection for planning and policy development, (4) evaluation services, (5) information clearinghouse services and (6) dissemination and utilization. In order to increase the responsiveness of vocational education to the needs of individuals and society, four major themes were identified: (1) comprehensive planning, (2) special needs populations, (3) sex fairness, and (4) effective evaluation. Consortium activities are ongoing or in planning stages for the following institutions and target groups: (1) State Departments of Education, (2) Elementary/Secondary School Career and Procedural Programs, (3) Postsecondary Institutions and Districts, (4) Black Colleges and Universities, and (5) Indian Populations.

A number of research, development and evaluation projects have been conducted through the National Center. These projects have resulted in a variety of products and a wealth of information. The National Center is incrasingly recognized as a clearinghouse of information and consultation. During Fiscal Year 1978–1979, 1,890 visitors from 50 states and 25 foreign countries came to the National Center to consult with staff, review National Center products and activities, and utilize information resources. A total of 37,817 external information requests were processed. Field sites were established in 56 locations in 30 different states. More than 500 state and local leaders have been involved in field site activities.

Nationwide dissemination and utilization system

A nationwide dissemination and utilization system has been established through the National Center. The system facilitates vocational education program improvement through the selection and implementation of quality research and development products. Because dissemination and utilization tasks are being closely linked, new opportunities for program improvement have emerged through the use of a coordinated, reliable system.

First year efforts include: Six exemplary products were selected from a nationwide pool of over 3,500 products. These products focused on occupational counseling and guidance services for the physically disabled, serving the handicapped, guidelines for sex fair curricula, the elimination of traditional sex roles, cost effective postsecondary vocational programs, and guidelines for teachers of adult occupational education. In January (1979) these six products were introduced to over forty state vocational education directors for utilization in their states.

Special instructional resource packages were compiled and disseminated for five new and developing occupational areas: biomedical technology, entrepreneurship, energy conservation in construction, occupational survival skills, and business and office competencies. Several states have already reported plans to install some of these products statewide, and other states are requesting permission to reproduce these products for statewide distribution.

Sixteen papers were commissioned and completed addressing such national priorities as evaluation, CETA, planning, sex equity, and special populations.

Training and liaison activities were conducted with state research coordinating units, curriculum coordination centers, and local education centers.

Concurrent with these efforts was the initiation of a national study to assess the distribution, use, and impact of selected research and development products at the administrator, teacher, and student levels.

The Advanced Study Center

The Advanced Study Center is a sub-unit of the National Center for Research in Vocational Education. Its mission is to provide professional growth opportunities for men and women with high intellectual and leadership capability who are prepared to engage in productive inquiry related to vocational education. Individuals (FELLOWS) are selected through national competition and are awarded fulltime nine-month appointments for resident study at the Advanced Study Center.

Fellows pursue lines of inquiry relating to Programs of National Significance such as: bilingual programs, vocational services for the disadvantaged and the handicapped, and sex fairness in vocational education. The Fellows interact with members of the National Center Faculty, and with leaders in government, industry and other key areas. As a result of their activities, the intellectual capital in vocational education is expanded, policy alternatives are identified and examined, and new areas of inquiry are illuminated.

During Fiscal Year 1978, fourteen Fellows were in residence: six were from universities, three were from local education agencies, two were from community colleges, two were from state departments of vocational education, and one was from a Governor's Office of Manpower and Human Development. Two of the fellows were former Fulbright scholars.

The National Academy for Vocational Education

The National Academy for Vocational Education, also a subunit of the National Center, is a mechanism for encouraging leaders in vocational education to fulfill increased responsibilities and to focus their efforts on problems of national significance. It fulfills its functions through an Institute Program and through a fulltime Inresidence Program. During its organizational year (1978), the Academy conducted twelve workshops covering a broad range of issues and concerns at six different sites across the country. The 454 participants represented all fifty states from state and local level agencies, postsecondary institutions and institutions of higher education. Native Americans, blacks, Hispanics, Asians, and specialists for the handicapped, disadvantaged and program equity were among the participants.

The Institute Program has precipitated: implementation of competency based staff development programs in six Ohio postsecondary institutions; improvement of the effectiveness of a southeastern state education agency management system for the delivery of all vocational education services; and the adoption of a short-term experience-based program to improve state agency-native American relations in states such as Washington, Montana, Oklahoma, Minnesota and South Dakota.

Twenty-seven persons participated in the Inresidence Program. The average duration of the Inresidence Program was 21¾ days. Residents participated in leadership activities and/or developed materials for use in their respective states. These individuals were sponsored by seventeen states and one foreign country. Twenty-two percent were females and forty-four percent represented minorities and special populations.

The success of the Inresidence Program is reflected in the widespread acceptance and use of programs and products developed by Inresidents. Examples of such use include: a state board for vocational education's acceptance of a policy handbook for the administration of vocational education special needs programs; a state board for vocational education's adoption of a statewide evaluation approach for assessing the achievement of vocational education special needs students; and an International Union Training Fund adoption of an evaluation scheme to assess the effectiveness of their national apprenticeship instructor training program.

The average participant cost to the federal government for activities conducted by the Academy in 1978 was only $579.90. This compares favorably with the federal participant expenditures of $1,063.72 per participant incurred during the previous year, a reduction of $483 to the federal government.

Resources in vocational education

Resources in Vocational Education is a nationally distributed bimonthly abstract journal which announces the availability of vocational education reports and other documents representing research, exemplary programs, curriculum development, and other projects conducted throughout the nation. Approximately 200 documents are announced in each issue. The publication is used by vocational education administrators, teachers, counselors, teacher educators, researchers, and students. In fiscal year 1978, five issues and an annual index of Resources in Vocational Education were developed and delivered.

In addition, 1,285 annotated bibliographies have been completed covering all federally administered projects under Part C, Part D, Part I, and Part J from 1977 through 1979. Arrangements have been made with all 56 Departmenters of Education to provide them with information on their respective Parts C and D efforts.

An annual report on current federal and state administered projects will be delivered to the Coordinating Committee for Research in Vocational Education (Bureau of Occupational and Adult Education/Division of Research and Demonstration, National Institute of Education, Fund for Improvement of Postsecondary Education, and Office of Career Education). A bibliography has been completed which lists all federally and state funded products conducted from 1968-1978.

ERIC Clearinghouse on Adult, Career, and Vocational Education

Established in 1966 as the first ERIC Clearinghouse in the system, this clearinghouse serves as a national information system which obtains and makes available hard-to-find, often unpublished information in all areas of education. Sponsored by the National Institute of Education, the ERIC system uses a nationwide network of 16 clearinghouses to acquire, select, annotate, and index current printed materials in 16 different educational areas. Centralized ERIC facilities handle the reproduction and distribution of documents to individuals and libraries throughout the world. The clearinghouse is co-located with the National Center for Research in Vocational Education and serves three special areas: adult and Continuing Education; career Education; vocational and technical education; and education and work (new thrust).

The clearinghouse also offers information services and develops publications for these three areas of education. It accomplishes this task through:

Document Resources.—The Clearinghouse seeks and prepares valuable printed information for public dissemination.

USER Services.—The Clearinghouse responds to requests for specific information or assistance.

Clearinghouse Publications.—The Clearinghouse publishes papers based on materials in the ERIC collection.

NATIONAL NETWORK FOR CURRICULUM COORDINATION IN VOCATIONAL TECHNICAL EDUCATION

Since 1972 six regional curriculum coordination centers (CCC) have been supported with funds from the Bureau of Occupational and Adult Education. The CCC's form a national network for dissemination, curriculum management, and liaison with 57 states and territories. During 1978, the six centers disseminated over 132,000 copies of materials to the vocational education community. They conducted inservice workshops and training programs on such topics as sex equity, adapting materials for the handicapped, new and emerging occupations, and the utilization of newly developed materials. A total of 285 workshops were conducted with approximately 10,000 participants from both public and private institutions and business/labor and industry. Currently funded projects include: developing effective mechanisms to facilitate coordination between CETA/YEDPA programs and vocational education; increasing access of program options and providing equity for all subpopulations; improving planning for the urban and rural depressed areas; and modifying vocational education curriculum for the handicapped.

One of the original goals of the National Curriculum Coordination Center Network was to see that a curriculum center was established in each state or to assist those already in existence to improve their operation. Successful progress has been made on this goal as evidenced by the fact that thirty-three states have some form of curriculum center. Every state and territory participates in the National Network by appointment a State Liaison Representative (SLR) and by participating in regional and national meetings sponsored by the Network.

State vocational education curriculum laboratories

State vocational curriculum laboratories play a key role in supporting quality vocational education programs. State curriculum laboratories are involved in developing, adapting, producing, and distributing a wide range of curriculum and instructional materials. Many labs maintain extensive libraries containing both printed and audio-visual resources that are available for loan. Labs in many states also provide in-service teacher training support, conduct research related to curriculum concerns, and participate in disseminating materials and information to other states through the National Network for Curriculum Coordination in Vocational Technical Education (NNCCVTE). The labs also cooperate with business, industry and labor organizations to improve and support vocational education program improvement.

STATE RESEARCH COORDINATING UNITS

In the 1963 Vocational Education Act Congress provided funds for research which were used to allow each state to apply for a grant to establish a Research Coordination Unit. By August of 1965, twenty-four states had applied and had been approved to begin operation. By 1967 all states had prepared such a grant application and had an RCU in operation. Initially RCU applications could be submitted by state universities or by state departments responsible for the administration of vocational education. Until 1969 more than sixty percent of the Research Coordination Units were located in universities.

In 1968 Congress amended the Vocational Education Act of 1963 by making separate line item provisions for research, exemplary and curriculum programs. Specifically Part C-Research allocated funds that were equally split between the federal level and the state level, Part D-Exemplary and Innovative Programs provided a base amount for each state plus an equal share for federal and state levels and Part I Curriculum Development provided funds for federally funded activities only. It was through Part I-Curriculum Development that the National Curriculum Coordination Center Network was established.

In 1968 Congress also wrote the Research Coordinating Unit into the state provisions under Part C by stipulating that up to seventy-five percent of the administrative cost of operating a State RCU could be paid for from these funds. This provision was especially significant because it gave direct control of the funds for support of the RCU to the State Director of Vocational Education as opposed to the U.S. Commissioner of Education. Consequently, this made the RCU concept an integral part of the state level vocational education system. As a result, all but eight of the RCUs had been moved to the State Departments by 1976 and these eight had very close ties with the state department they served.

In 1976, Congress added more emphasis to Program Improvement and Supportive Services by consolidating research, exemplary and innovative programs, curriculum development, guidance and counseling, personnel development, and grants for elimination of sex bias under Subpart 3-Program Improvement and Supportive Services. Twenty percent of the funds allocated to the state would be used for this purpose. Congress greatly strengthened the status and responsibility of the RCU by making it responsible for the coordination of research, exemplary and innovative and curriculum development through the Comprehensive Plan for Program Improvement. This provision has caused much change and readjustment of functions in several states since it had the effect of mandating a RCU in each state department that operates research, exemplary or curriculum activities. It should be pointed out that this does not mean that these functions have to be operated under one head. It means that they should be planned for and coordinated as a comprehensive concept. Several states have gone even further by making personnel development a part of this function. Many states also include information systems, evaluation systems, guidance, and grants for elimination of sex bias under the RCU function.

Today there is some form of RCU in every state and trust territory. These units are collectively responsible for the management of a minimum of sixty million dollars of research, exemplary and curriculum activities annually. Collectively they are responsible for funding, monitoring and/or conducting over six hundred research, curriculum and innovative projects each year. Many of the products from RCU efforts have been used extensively in the originating states. Several products have been of such high quality that they have been disseminated in several other states. This dissemination and utilization trend has been especially true in the past three years. At the present time there is no systematic way of measuring the collective impact of the RCU concept. However, it is known that in the first two years of operation under the 1976 Amendments that over 1,000 projects were supported by the RCU's at a cost of $60,000,000. The National Center, as well as several states, are conducting studies to determine the impact of research and development efforts. The National Center maintains an inventory of RCU efforts.

The RCUs have joined together under the National RCU Association to share knowledge and to conduct National and Regional conferences. Currently, the RCU's are working together as an organizational body with the National Center to increase the utilization of applied and action research in Vocational Education. This consortium effort has produced a conceptual and operational nationwide Dissemination and Utilization System for Vocational Education. In addition, the RCU's have been investigating ways by which they may collectively impact on regional and national needs. An earlier consortium effort which originated in the Florida RCU later became V-TECS (Vocational Technical Education Consortium of States) through the efforts of the Southern Association of Colleges and Schools.

PERSONNEL DEVELOPMENT

In writng the Education Amendments of 1976, Congress was concerned with several essential program areas, one of which was increased personnel development to alleviate teacher shortages and to improve the quality of staff.

Vocational education leadership development programs

Individual awards are provided through the vocational education leadership development program to prepare leaders for key roles. Selected through national competition, participants are able to spend a maximum of three years in graduate study or full-time post graduate study to acquire leadership skills. In 1978, a national panel of experts selected 155 awardees from 1,200 applicants. Past experience has illustrated that upon completion of the program, 83 percent of the awardees have obtained their first position as administrators, assistant administrators, directors, supervisors, coordinators, consultants, professors, specialists, and chairpersons in vocational education. Participants have also assumed leadership roles in the U.S. Office of Education, have become State Directors of Vocational Education, and have become presidents of community colleges.

Vocational education teacher certification fellowship program

This fellowship program provides opportunities for unemployed teachers, who have been certified to teach in other fields, to become vocational teachers. The program also provides opportunities for persons in business, industry, and labor to become vocational teachers. Although fiscal year 1978 was the program's first year, there were strong indications that fellowships recipients would have many opportunities for placement.

The National Center for Research in Vocational Education recently reported that an estimated 158,872 new teachers would be needed for fiscal years 1977 through 1981. The annual need for new teachers was 28,400 for 1977 through 1979 and is expected to increase to 36,800 for each of fiscal years 1980 and 1981. It is anticipated that there will be a dificit of 9,200 teachers for fiscal year 1979 and 17,600 for each of fiscal years 1980 and 1981. The Fellowship Program has developed the capacity to respond to part of this extensive projected deficit.

SCHOOLS, COLLEGES, AND DEPARTMENTS OF EDUCATION IN MAJOR UNIVERSITIES

For over a century universities and colleges have played a key role in vocational education. Yet in recent years their role has been questioned and their capability to produce has been hampered. It is time to re-establish a strong emphasis on the role of higher education in vocational education.

After a long period of struggle with the problems of enhancing employability and employment, the profound complexity of the problems is gradually being better understood. Perceptions of single causation for the lack of employability and employment and attempted solutions aimed at single causes clearly are inadequate. There seems to be a well documented basis for asserting that the lack of employability and employment is not simply the result of an absence of technical job skills. Lack of basic skills, low motivation and inappropriate career choices as well as an absence of technical skills are factors which limit employability and employment and which deprive the nation of productive use of the potential of its citizens.

Piecemeal approaches such as varying the sources of funding and changing organizational structures have not been effective. A comprehensive consideration of all the relevant factors, the interrelationships among these factors, and the fashioning of approaches to modify those factors are needed if practical solutions are to be found to intense societal problems.

Training and education of those responsible for making a delivery system work, research, policy analysis, and dissemination are major aspects of the process of addressing the basic questions.

Professional preparation

One factor which is seldom explicit in addressing questions about employability and employment is the matter of attitudes, skills and motivation of professional personnel who are charged with modifying characteristics which retard or obviate employability. Changes in funding sources or in organizational structures and alternative delivery systems will not compensate for inadequately prepared professionals who are charged with making a delivery system work. One lesson that should have been learned in past attempts at solutions is that "just anybody" cannot provide the education and training needed to enhance employability. The education and training problems are complex and require the most highly educated, trained, disciplined, and dedicated professional effort. Any attempted solution to the problem of employability which neglects consideration of the professionals needed to make the system work is doomed to failure.

The major current mechanisms for the pre-service preparation of professional personnel which has demonstrated success are schools, colleges and departments of teacher education and the support system in institutions of higher education. Inservice programs are also fundamentally dependent upon teacher education institutions. If inservice programs are provided directly by schools, colleges and departments of education, then the relationship is a direct one. If inservice efforts are provided by other agencies, those efforts are partially dependent upon the use of teacher educators or those who have completed teacher education programs.

Institutions of higher education have a demonstrated capacity for leadership and service in both pre-service and inservice programs and should be significantly involved in any efforts addressing these programs.

Vocational educators, counselors, teachers of basic skills, and school administrators are all essential components of the delivery system. The capabilities of these professionals can be either inhibited or enhanced by the orientation and quality of the pre-service and the inservice programs which they experience. Hence, any legislation aimed at enhancing employability and employment should give attention to the professional preparation programs in schools, colleges and departments of education and their impact upon the field of practice.

Closely related to the quality of pre-service education programs is the quality of those who are stimulated to enter those programs in preparation for key positions which will affect, in a vital way, the effectiveness of efforts to enhance employability. Graduate fellowship support has been demonstrated to be an effective mechanism for stimulation and support of capable individuals in deciding to become prepared to lead in changing conditions which are considered unsatisfactory. Unless females, minorities, and talented individuals of any sex or race are prepared for key positions and unless they assume such positions, the development and implementation of viable programs will be extremely difficult.

Research and policy analysis

It appears that the problems involved in enhancing employment and employability have not been defined adequately. Without adequate problem definition, there is little probability that viable alternatives will be developed. Much more effort is needed in problem definition. Institutions of higher education are a reservoir of talent which should be used in research efforts to define more adequately the problems.

Even with adequate problem definition, the imaginative development of possible alternatives and the accurate projection of probable consequences of those alternatives are difficult to achieve. Often projected consequences do not, in fact, occur, and often unanticipated consequences occur which are judged to be highly undesirable. The reservoir of talent in institutions of higher education, if properly used, can contribute to the imaginative development of possible policy alternatives, the projection of probable consequences of those alternatives, and the testing on a limited scale of the implementation of some of those alternatives.

An added advantage to the use of the reservoir of talent in institutions of higher education is the heightened opportunity to transmit directly into professional preparation programs the findings and insights developed through research and policy analysis efforts.

Dissemination

Schools, colleges, and departments of education represent a vast in-place network which can be utilized to disseminate effective practices. The use of such a dissemination network also can facilitate the process of helping to keep preparation programs current with new findings.

Capacity to deliver

Schools, colleagues, and departments of education and other disciplines in institutions of higher education can play an important role in enhancing employability and employment through professional preparation programs, research and policy analysis, and dissemination. The use of existing resources and networks appears to be an efficient means of addressing a series of complex problems. Every state has at least one major university that provides for comprehensive research and teacher education in the field of vocational education. Many states have as many as seven to ten universities that provide for teacher training in at least one program area of vocational education. Approximately 40 universities in this country could be considered comprehensive at least at the masters level. No less than twenty offer degree programs through the doctoral level. This vast reservoir of talent needs to be better utilized than it has in the past, especially considering the teacher shortage that currently exists in vocational education and the great need for research and development in major priority and curriculum areas.

Local Educational Agencies

The local public secondary and post secondary schools of this nation are primarily responsible for the education and training of young persons and adults. However, they can and often do play a major role in program improvement. Several local agencies have an excellent record of being exemplary models for others to emulate. Many have done excellent research and development, especially in the applied context. They must not be overlooked as key actors and participants in the program improvement process. Without this local element realism and relevancy cannot be present in new and emerging concepts and materials.

Other elements of the system

The description of elements could be endless. Obviously, at some point the discussion must end. To bring this section to closure a few will be highlighted that should not be overlooked: they include but are not limited to the following:

1. The Research and Demonstration Branch of the Bureau of Occupational and Adult Education, U.S. Office of Education which is presently responsible for federal level administration and monitoring of the system.
2. The fifty-six State Boards of Vocational Education which provide policy direction for the system and often house some of its major components such as the RCU.
3. The National Institute of Education which provides for basic research in education and work and several Regional Centers that aid in development and technical assistance.
4. The hundreds of private consultant firms, both profit and nonprofit that do excellent research and development.
5. The numerous private institutions that cooperate with the public sector.
6. The numerous local, state and federal agencies that cooperate with those responsible for the delivery of vocational education.
7. The many business, industry and labor elements that participate as partners in the system.
8. The several consortium of states that have gone together to share resources such as MAVCC, V-TECS and NOCTI.
9. The National and State Advisory Councils in Vocational Education which are charged with evaluating the system and providing advice for its improvement.
10. And many more.

Summary

Although these elements are not an exhaustive description of the current capacity of the system, they have served as the significant components to date. The problems of administrative and fiscal constraints have continually hampered these elements from reaching their full capacity and from having a full impact on the growth of quality instruction in Vocational Education.

Since 1963, several major social, educational and economic issues have received attention through program improvement elements and findings. The following list of problems and related program improvement activities that have been addressed illustrates this point.

(1) Models and programs for Vocational Guidance and Counseling.
(2) Projects that address federal, state and local management information systems.
(3) Curriculum and instructional packages in all program areas.

(4) Program models for Career Education (prior to 1976 one fourth of all resources were spent here).
(5) Projects related to population and employment shifts.
(6) Professional development to include preservice, inservice and leadership.
(7) Dissemination and utilization problems.
(8) Vocational education access of the special needs population.
(9) Development of a Research and Development capacity.
(10) Activities directed at comprehensive planning.
(11) National and state level evaluation and assessment activities.
(12) Expanding vocational education's role with the adult.

ISSUES AND RECOMMENDATIONS FOR FUTURE LEGISLATIVE CONSIDERATION

In the previous sections of this paper, the existing elements of a nationwide program improvement system have been described. It is significant to note that everything described in the last section of the paper as current Research and Development capacities has evolved within the last fifteen years with the exception of several major universities and the federal and state offices responsible for the management of vocational education. In fact, most of the development has come within the last ten years. It has been established and can be demonstrated that there is an extensive capacity already in existence in this country that can effectively manage and conduct program improvement activities. As in most relatively new systems, it can be demonstrated that there is a need to improve and refine the current system, especially in the areas of coordination, planning, and personnel development. Nevertheless, it is believed that vocational education has the essential elements necessary to manage and operate an outstanding program improvement function given more resources, time and further clarification of functions within its existing management structure. Even with its weaknesses vocational education has the best research and development structure that exists in education today.

When this task force was given its mission Dr. Gene Bottoms asked: "Does the improvement system only need fine tuning or does it have the capacity to do far more than it is now doing?" The task force was asked to "dream" and to look for new and innovative ideas. In conducting its work, the task force found that the system does, as a minimum, need fine tuning, but in general it needs extensive review and overhaul. It was decided that there are new areas that can be added for increased effectiveness. The committee found that legislation for Program Improvement is in need of extensive revision. However, the committee also believes that if major revisions are not forthcoming that there are from three to five technical amendments that could be made to present provisions that would greatly enhance capabilities under current law. This belief is put forth on the premise that present provisions are extremely broad given liberal interpretation and that most of the problems with the 76 Amendments resulted from such things as the "contract's only" clause which led to an RFP system that seems to have favored private firms based in the Washington, D.C. area. This situation resulted in a small percentage of the funds being awarded to universities which caused them to boycott the system. The major outcome of the boycott has been the lack of adequate support from all quarters necessary to cause Congress to allocate the full 5 percent resulting in a limited number of projects and virtual elimination of the fellowship program. This coupled with the fact that several key universities had been eliminated earlier as graduate leadership institutions and that they do not feel they have benefited from program improvement resources in their own states, has alienated them toward the federal and state offices responsible for management of the system.

One other technical aspect of present legislation that needs attention is the "impact" or "use" paragraph which has had the effect of causing most research dollars to be directed toward curriculum or materials development. The "applied" emphasis inherent in the legislation, coupled with contract problem and the impact problem have all but eliminated field initiated activities creating limited opportunities to conduct any basic research.

The committee strongly emphasized that the Comprehensive Plan for Program Improvement should be further defined and utilized at both the state and federal level as a management tool for program improvement activities. This plan presently requires that the state RCU coordinate research, exemplary and innovative programs and curriculum development by: (1) including its RCU organizational structure in the state plan; (2) listing its priorities for program improvement; (3) defining the methods to be used for addressing the priorities, i.e. research, curriculum and exemplary activities as appropriate; (4) showing how resources are allocated to priorities; and (5) showing how the products or outcomes of the activities will be disseminated to include submission of all abstracts and reports to the National Center.

This plan is viewed as an excellent vehicle because it causes a state to focus on systematic planning and coordination across all functions. It causes program improvement to operate along a continuum concept as opposed to the traditional separate categorical line item. The team believes that personnel development as well as impact assessment and evaluation should be addressed in this plan so that the full continuum from research through implementation and training is accomplished. The task force believes that this would cause the federal, state and university level to focus its efforts toward local level program and staff improvement rather than upon their own self preservation and perpetuation of the status quo.

The task force was unanimous in stating that the federal and state roles should be further clarified and distinctively defined in any future legislation. The task force was unanimous in recommending that Program Improvement at the state and federal levels should be expanded to include the following elements to encompass a full cycle of activities that allow for planning, implementing and assessing program and staff change. The cycle is inclusive of:

(1) Research and Inquiry.—Disciplined study, both basic and applied, both prescribee and field initiated, is required to determine needs, plan for, design, and test tentative and alternative solutions to ameliorate those needs.

(2) Exemplary and Innovative.—Development of model programs (to demonstrate methodological or material innovation) and pilot programs (Developed for targeted audiences) are significant aspects of publicizing and implementing program improvements.

(3) Curriculum Development.—Constant regeneration of instructional materials is required to avoid technological obsolescence and to incorporate pedagogical innovation. Efforts need to be continued, further stimulated, and therefore, authorized to provide for diffusion and utilization of products wherever developed.

(4) Personnel development.—Skill building is as important to program improvement as the development of materials. Training programs must be conducted in the utilization of innovative methods and materials for teachers, supervisors, teacher educators, and local and state level administrators. Professional development activities need to produce competent individuals in any area where shortages restrict program development or improvement as well as provide for future leaders in all areas.

(5) Dissemination and utilization.—An applied research and development system must have a strong emphasis on the application of all known techniques of delivery of outcomes to the user with the necessary technical assistance for proper adoption/adaption and implementation. Constant efforts must be in progress directed at development of new and improved diffusion techniques.

(6) Evaluation and assessment for planning and utilization.—An R&D program is more than a collection of classroom methods or materials. Activities must be authorized for the purpose of gathering information for administrative decisions at both the state and federal levels. The effects of operational program and impact of program improvement activities must be evaluated to formulate priorities for future plans.

The task force believed that these six elements can be applied to the solution of most problems that are facing vocational educators at the local, state or federal level. The team felt that this concept should be promoted as the vehicle for the solution of problems or for the delivery of services to the field as opposed to representing them as end units unto themselves. Congress is and should be much more inclined to provide funds for vocational education which address the problems of society through a sound research and development system than it is to support research and development as separate categorical entities for their own self serving interest.

SPECIFIC ISSUES AND RECOMMENDATION FOR LEGISLATIVE CONSIDERATION

In the following pages several specific issues and recommendations will be dealt with in greater detail. The issues will first be presented as a single question or statement, followed by a specific set of recommendations. Supporting rationale will then be provided for each issue and set of recommendations.

ISSUE NO. 1

What should be the roles of national, state and local elements in program improvement in vocational education?

RECOMMENDATION

National level.—The Office of Vocational and Adult Education, U.S. Department of Education shall be responsible for directing and monitoring the federal role for Program Improvement in Vocational Education. The structure of the new Department of Education should include a major component which reports directly to the Assistant Secretary for Vocational and Adult Education that is responsible for the administration and monitoring of legislative provisions for operation and/or allocation of resources for program improvement activities as defined by law. Program improvement at the federal level must include a systematic continuum of activities inclusive of research, inquiry and development, curriculum development, demonstration and innovation, personnel development, dissemination and utilization, evaluation and impact, and assessment. The federal level must be adequately funded and must provide the discretional authority that allows for the use of grants, contracts and cooperative agreements in the conduct of business. As a minimum the National level should provide the following:

A research and development function which includes:

A. A provision for continuation of the National Center for Research in Vocational Education which performs programmatic and service designated functions. The National Center of the future should have more discretion as to the use of its funds toward new and emerging needs that tend to arise on short notice. The Center should have a National Advisory Council to give direction on priority areas and use of resources as related to need. The Center should perform the following functions:

(a) Conduct applied research and development on problems of national significance in vocational education.

(b) Provide leadership development through an advanced study center and inservice education activities for State and local leaders in vocational education.

(c) Disseminate the results of the research and development projects operated by the Center as well as the products of State RCU's and other agencies.

(d) Develop and provide information to facilitate national planning and policy development in vocational education through the establishment of a center for policy development in education and work.

(e) Act as a clearinghouse for information on contracts made by the States pursuant to state program improvement provisions and on contracts, grants and cooperative arrangements made by the Commissioner.

(f) Work with States, local educational agencies, and other public agencies in developing methods of evaluating programs, including the follow-up studies of program completers and leavers so that these agencies can offer job training programs which are more closely related to the types of jobs available in their communities, regions, and States.

(g) Serve as a liaison and provide technical assistance to state level program improvement elements in their collaborative efforts to participate in a nationwide system of research, development, dissemination, and utilization.

B. The discretionary authority to operate a comprehensive program of research and development through the use of contracts, grants and cooperative agreements that provide the capability to: (a) examine national/social/economic problems that face vocational education; (b) conduct assessments and evaluations so that recommendation may be made for the purpose of establishing policy and setting direction; (c) provide for field initiated activities that accommodate both basic and applied activities; and (d) provide for dissemination activities to include linkages with the National Network for Curriculum Coordination, the State Research Coordination Units and the National Center for Research in Vocational Education as well as other networks.

C. A formal liaison function with the State Research Coordination Units and the Centers making up the National Network for Curriculum Coordination: State Research Coordinating Units should participate in the Nationwide Research and Development System through collaborative efforts in research, development, and dissemination which are of regional or national interest. A national liaison between OVAE and State managers of program improvement must be maintained to facilitate movement of products and innovations. The capacity for responsible R&D is a national commodity resulting in the potential for substantive program improvement. A rapid transfer of these materials and ideas is essential for the potential t be realized.

D. The Curriculum Coordination Centers should be provided for in future legislation and given the following general responsibilities; (a) the Centers should be heavily involved in the collection and sharing of resources and in this context should expand beyond the concept of curriculum; (b) the Centers should in some way be linked to the National Center as a dissemination and technical assistance element in the use of materials in their collection; (c) the Centers should deemphasize development as an internal function since this is a designated state function. The coordination of joint development among states is supported and recommended; and (d) the Center should continue to use the State Liaison Representative concept, but the location of this person should be clarified at the state level. Since the RCU is legally responsible for curriculum and dissemination the SLR should be directly linked to and/or included in this element.

E. A personnel development function which provides for the administration of a national professional education development function which includes: (a) a provision for university capacity development for research and professional training; (b) a fellowship grant program for leadership development to include program improvement personnel; (c) support of selected aspects of teacher education excluding maintenance of teacher education on a long term basis; and (d) activities directed at Leaderhip Development of Federal and State Staff.

F. The coordination of Vocational Education Program Improvement with other legislation.

G. The addition of a major long term grants program for model development and implementation of model programs that address the urban and rural problems of our nation and that address the problem facing in-school and out-of-school youth as well as long range development activities oriented toward an adult dominant society. If separate titles emerge in the final legislative structure, it is recommended that each title have its own grant provisions that are funded at a significant level.

State level.—Individual states are responsible for the education of their citizens. Therefore, the primary focus of program improvement should be to authorize those activities that permit or cause improvement to occur. The State role in vocational education program improvement should be to provide materials, services and resources which contribute to or support the upgrading of program services and personnel at the local level (school districts, area vocational centers, technical institutions, community colleges and colleges/universities).

The Research Coordination Unit should be retained and should be charged with responsibility of coordinating, directing, and/or conducting program improvement at the state level. Program Improvement functions to be coordinated at the state level should, as a minimum, include research and inquiry, demonstration, curriculum development, personnel development, dissemination and utilization and assessment as related to impact. The primary vehicle for coordination should be the comprehensive plan for program improvement which should include: (1) annual priorities for program improvement; (2) methods for addressing each priority; (3) allocation of resources for addressing specific priorities; (4) methods and techniques for disseminating outcomes and products; (5) processes for assessment, evaluation and impact of the states program improvement efforts; (6) linkage and reporting mechanisms with other state, regional and national elements of the nationwide R&D system.

The plan should provide for an approach to program improvement through a systematic continuum which links research to implementation and evaluation back to research. The comprehensive plan needs to be a complete plan for regeneration and improvement. This infers change should be anticipated and planned for. The comprehensive plan should be a management plan for achievement of goals and activities. To be effective, program improvement at the state level must include the cycle of the six activities that provide for planning, implementing and assessing program change as defined earlier on pages and . Present legislation language should be consulted to insure complete coverage of all elements as now defined.

RATIONALE

Program improvement should be defined to include those elements which contribute to or provide for quality programs, supportive services, and personnel development in vocational education at the national, state and local levels. There was much discussion by the National and State Program Improvement Task Force concerning the federal, state and local roles in program improvement. There was much concern over the administrative practices of all levels. There were very strong feelings that the legislation needs to be specific in terms of the type of activities and the focus that should be the primary concern of each level. The complaint most often expressed centered around the past practice of the federal level in funding projects directly with local schools that address local problems or curriculum projects of limited application. The committee strongly suggested that activities that affect local schools or activities that are of an applied nature should be accomplished with state and local resources. The committee expressed strong feelings that the federal level should deal with national issues of major significance and that their thinking and application should be long range. It was further recognized that most of the problems of the system today can be traced to administrative interpretation or practice rather than to the basic intent of the law itself. Even those things needing technical attention at the present time could be resolved administratively if the initiative were taken to do so.

There was strong support on the Task Force and at AVA for a single unit to coordinate the State Program Improvement function. However, there was mixed response with the task force and at AVA on whether it should be called a Research Coordinating Unit. Arguments in favor of retention include the fact that the term (RCU) is recognized by the field and by Congress and a recommendation to change creates the necessity to re-educate both. Arguments against include the fact that the term is either thought to be antiquated and/or too narrow in terms of today's responsibilities. Another argument is that what it is called legislatively doesn't make such difference because states call it what they want to anyway.

The Task Force felt strongly about the single unit concept with the stipulation that the Comprehensive Plan for Program Improvement be used as the vehicle for implementation of the major functions. The Research Coordination Unit of today is truly a coordination concept, not just a designated administrative element as envisioned by many.

ISSUE NO. 2

What are the local state and national roles in personnel development, especially teacher education and personnel development?

RECOMMENDATION

(1) Personnel development should continue as a part of the state and national program improvement sections of the legislation with specific subtitles and provisions.

(2) Personnel certification and recertification which are in the form of fellowship should be included under the state program improvement title. Any university teacher education program that is operational in nature should be supported from State funds.

(3) Personnel development should serve as the mechanism for leadership development in vocational education. Activities for leadership development should be included in the federal provisions through: (a) Continuation of the Vocational Educational Personnel Development program; (b) National Center for Research and Vocational Education; (c) Regional and national conferences, which address priority groups in priority areas of vocational education personnel development.

Participants in these leadership development activities should include: (a) local, state and national leaders who currently provide direction to vocational education; (b) emerging leaders who have the potential to provide such direction, and (c) those persons who work in program improvement at the federal, state and university levels.

(4) Funding should be provided for the support of grants that can be made directly to institutions of higher education with concurrance of the appropriate State Board of Vocational Education. The specific purpose of these funds should be for expanding or developing the capacity to provide for comprehensive programs in vocational education personnel development.

The capacity to develop high equality (vocational education personnel is dependent upon) the development of a comprehensive research and development capability that focuses on major areas of concern over a long period of time. This (capacity) is essential for quality research in personnel development because it insures continuity which has been proven to be a primary element in producing impact on the system.

(5) Funding should be provided for the planning, developing and conduct of appropriate delivery systems of needed inservice and staff development at all levels of vocational education.

(6) Inservice education should be a collaborative effort involving the local education agency, the state agency and the appropriate institutions of higher education.

(7) The content of personnel development activities should be authorized in the state program improvement section and should include provisions for ensuring training in teaching techniques, use of curriculum and materials in a variety of learning situations.

RATIONALE

Several subissues were identified in the question "What is the state, federal, and local role in Program Improvement?" The issue of a separate title for personnel development was so pervasive that the task force dealt with it in the following context:

(1) Should there be a separate title in the legislation solely devoted to personnel development?
(2) Who should be the recipients of personnel development activities?
(3) What should be the content of personnel development activities?
(4) What is the delivery system?

Separate title

Several consequences were discussed that were related to the provision of a separate title for personnel development in future legislation. It was felt that some of the positive consequences of this action might be increased visibility for personnel development, direct availability of funds to universities, comprehensive capacity building of programs of research and training on a long term basis, increased lobbying support from some groups outside vocational education, increased opportunity for additional federal resources, and the potential for increased opportunities for institutions to deal directly with the funding agency.

Personnel development should be considered a top priority in the effort to establish quality vocational education and therefore should become a significant title or subtitle in both the state and national program improvement sections of the legislation.

Personnel development includes all categories, and all persons involved in the planning, delivery, and evaluation of vocational education. The term includes the preservice preparation and/or retraining of personnel, inservice development and renewal, and graduate leadership development.

These personnel development efforts provide the cornerstone of vocational education in its attempt to deal with the complex problems of productivity, youth employment, education of the handicapped and/or disadvantage, sex equity in employment and job preparation, a variety of minority concerns, energy education, and maximizing human effectiveness.

The designation of personnel development as a strong emphasis in the legislation reflects the view that personnel development is one of the most critical dimensions in providing the quality of vocational education needed in these United States.

The designation of a separate title for personnel development could bring increased allocations of support funding which are critical to recruiting competent personnel from business and industry and to providing the necessary preparation and resources. Total resources for support funding should be at least 5 percent of the total Federal appropriation for vocational education (half of that for Program Improvement at the federal level).

However, several negative outcomes were also identified Legislative history reveals that the singular focus on personnel development can significantly increase the risk of losing authorization support from Congress as evidenced by the loss of the Education Professions Development Act. Concern was aso expressed that this action might inhibit a state staff in the determination of priorities as well as decrease lobbying support from local and state level vocational administrators. These negative outcomes resulted in the committee's decision to recommend that personnel development be retained within Program Improvement with a specific subtitle and set of conditions.

Who are the recipients

There are several options that were discussed in this category. Among those groups considered to be recipients of training through federal personnel development activities were: certified vocational educators, new recruits to the field of teacher preparation, graduate students, and existing and potential leaders in vocational education. It was recognized that each of these groups has high priority in the continuation of effective vocational education programs. For example, it is necessary to provide ongoing inservice programs at the local level to ensure that teachers and administrators can respond to state and national priorities. At the same time, leadership opportunities must be provided at the state and national level to ensure a continued commitment and understanding of the vocational education perspective. Therefore it was the consensus of the committee that Professional Development support should not be confined to one target audience but allow provisions for many kinds of training experiences. The state plan should be authorized to distinguish between those experiences which are operational from those that are program improvement. Therefore, these concerns should be included under the state program improvement title.

What is the content

Although specifying the content of professional development activities insures that identified priorities are included in training, it was felt that the reduced flexibility associated with such a practice would reduce the opportunity to respond to emerging priorities. Therefore it was decided that no specific constraints on the length of training or the nature of the content should be designed. However, provision for the dissemination of new and emerging concepts, curriculum, and materials was thought to be an integral part of the personnel development function.

What is the delivery system

Who should initiate and coordinate professional development activities? The Federal Government? The State Agency? Higher Education? Local Education Agencies?

Delegation of this funding authority to any one of the above mentioned groups has an inherent consequence of promoting that group's responsibilities. For example, if the federal government is utilized as the coordinating agency, national priorities will most likely be stressed. If the state agency is utilized as the coordinating body, flexibility is provided for individual states to meet unique needs. University coordination of activities might result in assisting these institutions in the expansion of quality professional development programs.

In developing the recommendations, the committee recognized that there needs to be multiple managers and deliverers of the systems for personnel development to achieve national and state priorities for vocational education. Therefore it is suggested that personnel development functions be assigned to those agencies which are the most appropriate for the delivery of each service rather than single out one agency to have total responsibility for professional development activities.

ISSUE NO. 3

How and at what level should Program Improvement be supported at the Federal level?

RECOMMENDATION

All programs of national consequence should be included under a single title, "Programs of National Consequence". Funding for Item 6, Programs of National Significance should command an amount equal to 10 percent of the funds appropriated for vocational education under the new legislation. Approximately half of this should go to vocational education personnel development. A minimum of ten million should go to support the National Center for Research in Vocational Education. Each sub-title should have specific provisions for its operation and support. This major title should include the following:

(1) Planning and evaluation provisions.

(2) Vocational education date system (VEDS).

(3) National and State Advisory Councils.

(4) National and State Occupational Information Committee (NOICC/SOICC).

(5) American Indians and other Special Populations.

(6) Programs of National Significance (10 percent or approximately $100,000,000): (a) National Center for Research in Vocational Education ($10,000,000); (b) National Curriculum Coordination Center Network ($2,000,000); (c) Vocational Education Personnel Development Program ($50,000,000); (d) Nationwide Research and Development System (to include field initiated studies—basic and applied) ($25,000,000); (e) Grants Programs for Targeted Populations ($13,000,000); and (f) Coordinating Committee on Research in Vocational Education.

(7) Others as appropriate.

RATIONALE

Current legislation provides that 5 percent of the funds appropriated for vocational education be used for Programs of National Significance. However, the full 5 percent was only allocated in fiscal year 1978 and fiscal year 1979. In fiscal year 1980 and fiscal year 1981 the allocation was held to ten million each year. This is well below the 5 percent level which would provide over 30 million. On the one hand, this suggests that these programs are seen as important. On the other hand, they appear to be vulnerable. There is a need to continue the Programs of National Significance concept while protecting the funds annually so as to insure the capacity to operate on a continuous basis.

Public Law 94-482 provides for programs of national significance in the areas of research, exemplary and innovative, curriculum development, guidance and counseling, personnel development, and elimination of sex bias. In addition provisions are made for the National Center for Research in Vocational Education, Coordinating Committee on Research in Vocational Education and the National Vocational Education Personnel Development activities. Programs of National significance should continue as a specific title but should be tied to other areas so that there is more support for the annual allocation and so that the administration is charged with distributing funds in accordance with already defined interior.

The National Center should play an increased coordination role and should be allowed more freedom to apply its resources according to need.

The Office of Vocational and Adult Education should be able to have a sizeable portion of funds for research and policy activities; however, it should not support programs that relate to development or operations at the local level.

ISSUE NO. [illegible]

How and at what level should Program Improvement be supported at the State level?

RECOMMENDATIONS

(1) The separate subparts for Basic Grants Program Improvement under State Programs should be consolidated into a single title for State Programs. From the Federal funds which flow to the state under a State Program or Basic State Grant title, a minimum of 30 percent should be allocated for the support of the program improvement function. The recommendation of a minimum rather than an absolute split was strongly supported by those in attendance at the AVA Convention.

(2) Given that state, regional and national level collaboration is healthy, it is recommended that each state receive a base amount of $125,000 in addition to the minimum provided through formula allocation Specific functions related to collaboration should be tied to these funds as a part of the legislative language. It should be clearly understood that this base amount is made on the assumption that the state level collaboration is needed and that present allocation systems interfere with the small states' financial ability to participate. This recommendation should not affect the ability of the state to use its 30 percent minimum for its own purposes based on its needs as outlined in its Comprehensive Plan for Program Improvement.

(3) Assessment activities, data collection and evaluation of a non recurring nature and that is supportive of the program improvement process should be allowed and encouraged under Program Improvement. True assessment and evaluation activities are considered questionable under present program improvement language.

(4) The RCU should be retained to coordinate Program Improvement at the state level.

RATIONALE

The Program Improvement language of the 1976 Amendments should be fine-tuned to assist States to respond to legislative intent. Some recommended changes are:

(1) Make all program improvement activities the responsibility of a single unit in each state and have this unit responsible to the State Director of Vocational Education.

(2) Require that a minimum effort be established and maintained in order to use federal funds for a program improvement unit.

(3) Support the encouragement of program improvement networks in each state which operate through the program improvement function and which include local level disseminators. Colleges and universities that offer pre-service and in-service training should be primary and intregral part of such networks. This would provide a means for conducting R&D, reviewing R&D products to determine their usefulness, disseminating the products, and providing assistance in their utilization.

(4) Specify that program improvement funds may not be used to maintain existing activities, such as management information, state evaluation systems, etc:

These recommended changes infer that a higher level of emphasis must be placed on dissemination and utilization. A fine-tuning approach would likely be more acceptable to Congress and to the field rather than completely changing the provisions for program improvement. It is felt that this change would increase the emphasis on dissemination and utilization, provide for better coordination of the efforts, and assist practitioners in implementing the results. With present usage language in the legislation more emphasis must be placed on dissemination and utilization.

It should also be realized that Program Improvement efforts cross State boundaries and that each State should have the capability of participating in improvement activities. Coordination of efforts across States should help eliminate duplication and maximize federal investments.

Since the beginning of the RCU concept states have been encouraged to serve as disseminators for USOE and National Center products. The present percentage allocation system does not provide enough funds in the use of smaller states to be able to participate effectively in a nationwide system. Therefore a minimum base level of funding should be set aside for each state to conduct and participate in collaborative regional and national program improvement efforts. By way of illustration, a state receiving $5,000,000 for program improvement considers a decision to join V-TECS ($20,000) in a much different light than one who receives a total of $400,000 for the same functions.

For funding purposes, program improvement needs to be separated categorically from programs of maintenance or operation (including maintenance of teacher education and guidance). Because of the high priority given to operational programs and their escalating costs, program improvement activities cannot compete successfully for available funds unless there is some set aside or line item provision.

Likewise, Program Improvement funds should not be used to maintain data collection systems such as VEDS. In all states, the amount of money received for research, development and curriculum is limited. The maintenance costs of data collection systems would significantly curtail research and development capabilities especially in smaller states. However, the Task Force does feel that evaluation and information collection activities of a non recurring nature are legitimate activities in the program improvement continuum.

ISSUE NO. 5

What methods should be used for funding **Program Improvement**?

RECOMMENDATION

Provision should be made for administrators at state and federal levels to have the capability to fund program improvement efforts through contracts, grants and/or cooperative agreements. The Comprehensive Plan for Program Improvement should be used as the vehicle for planning and for describing methods of funding. Unacceptable methods and techniques proposed by the states could be denied during the State Plan approval plan process.

RATIONALE

Although contracts do provide for an accountable method of funding, the word "contract" has caused several serious management problems to occur at both the state and federal level. For example, there are at least four states that require the Governor or Attorney General to sign-off on every agreement under a "Contracts Only" mode of operation. About half of the states have very restrictive and time consuming procedures for execution of a contract.

At the federal level, the procurement of programs and services through the contract mode has virtually eliminated the ability to conduct field initiated research. The contract mode used at the federal level has resulted in over 80 percent of the fiscal year 1978 funds available for allocation through the request for proposal mode to be awarded to private consultant firms. Universities have been underutilized in the research capacity as a result. Furthermore, the contract mode has not provided for continuity in the research community. Continuity can be shown as a powerful factor which is directly related to success in terms of long term impact.

Those who testified originally on behalf of a contract mode of funding were doing so in a generic sense rather than in a regulatory sense. They were asking that a method of funding be developed that specified a program or service, that included measurable terms, that had clear procedures and timelines, and that was paid for based on accomplishments. In other words, the intent was to obtain a more accountable system, not a more restrictive system.

The provision that the state RCU must use a contract solely or conduct work internally for its research, exemplary and curriculum development activities must be modified or change. The same recommendation applies equally to the federal level. The administrative agency should be provided with the capability and the flexibility to determine the method of funding as long as an equitable system is in force.

Grants, contracts, and cooperative agreements should be within the parameters established by future legislation. At the very least, the word contract should be defined in a generic sense to avoid the imposition of procurement of goods and services regulations.

ISSUE NO. 6

How appropriate is the 5-year use/impact requirements for program improvement efforts?

RECOMMENDATIONS

It is strongly recommended that the "usage" statement be rewritten to be made applicable to total priority areas as identified in the Comprehensive Plan for Program Improvement rather than applied to individual contracts. As a minimum, use language should be removed from the research titles completely.

RATIONALE

There is little doubt that the field should be accountable for the quantity and quality of program improvement efforts. While accountability and impact are endorsed, the impact statement as currently written is overly restrictive in that it is meant to apply to individual contracts rather than the total program. The reverse should be true. Five years may be an inadequate amount of time to complete research, development, implementation and assessment of systematic change designed to address priority areas; however, within that period some increment of progress toward change based on the plan should be achievable and observable. Present language is ambiguous in that such terms as "reasonable probability," "substantial number of classrooms or learning situations" or "significant impact," have not been quantitatively or qualitatively defined in law, regulations, or practice. Furthermore, the concept of impact is not wholly consistent with the concept of systematic and objective research and inquiry. The statement has had the ultimate effect of causing states to fund very little research because it places such emphasis on materials development.

An R&D program is more than a collection of classroom methods or materials—it is a systematic sequence that involves gathering data for planning and decisionmaking, as well as the development and implementation of programmatic innovations. Limitation on activities associated with classroom products is unrealistic in terms of managing a program of R&D.

ISSUE NO. 7

Appropriateness of Elements Included Under State Program Improvement

RECOMMENDATIONS

It is recommended that vocational and career guidance be shifted from program improvement to the Subpart 2, Basic State Grants. Vocational and career guidance needs to be specifically identified as a set aside under basic state grants program (subpart 2), and funded at a level commensurate with or greater than its current authorized level. The level established will be identified in the law as a minimum resource allocation for this program area. Sex equity is presently addressed under Section 136—Grants for Elimination of Sex Bias and Sex Role Stereotyping. At least one other task force is addressing this issue and a Sex Equity Task Force has been created to address the question, therefore the Program Improvement Task Force wishes to recommend the Sex Equity remain an overriding priority for the legislation as well as a special priority title under Program Improvement.

RATIONALE

There is a concensus concerning a definite and demonstrated need for a program improvement strategy as related to vocational and career guidance programs. Currently, vocational and career guidance is a separate title under subpart 3. Its presence as a separate section with a specific set aside in the subpart has had the effect of decreasing guidance activities under Sections 131, 132, 133 and 135. Currently, the 20 percent minimum of the 20 percent set aside for section 134 is often regarded as a maximum by states. In other states it is used for operational maintenance rather than improvement. The presence of vocational and career guidance as a separate section is viewed as meeting fiscal and program needs by the majority of state vocational administrators.

An alternative to current legislation proposed by the committee is that of shifting the operational aspects of the vocational and career guidance programs section and move it aside from subpart 3 to subpart 2. The rationale of this change is (1) vocational guidance and counseling is an integral and operational support system for vocational education and should be present in every setting where vocational education program offering exist, and (2) vocational and career guidance has improvement dimensions and should receive equal consideration with other program priorities under sections 131, 132, 133, and 135.

ISSUE NO. 8

Should economic and social issues of national prominence be of specific concern and/or be specifically tied to provisions for program improvement?

RECOMMENDATION

Future vocational education should include the capability of addressing broad economic and social issues through program improvement resources. Major efforts should be initiated at the federal level in the form of long range policy, planning, and direction activities leaving the applied and programmatic aspects related to local school operation to the state level. Issues of national prominence should serve as a preamble to program improvement with program improvement being defined as a vehicle. Key issues suggested for inclusion are: (1) vocational program accessibility and equity; (2) vocational education and economic development; (3) increased worker productivity; (4) energy issues and conservation program models; (5) personnel shortages in vocational education; (6) demographic effects on population mobility and program needs; and (7) displaced workers, displaced homemakers, depressed communities, and other special populations.

In implementing this recommendation, it should be made clear that the task force is in no way suggesting that all program improvement resources should be directed at national economic and social concerns. To the contrary the task force strongly recommends that the federal and state levels have the flexibility to identify and determine their own priorities using the Comprehensive Plan for Program Improvement as an operational vehicle. The task force does not recommend that a specific percentage of program improvement resources be set aside for addressing economic and social issues but rather that the issues form a core program for priority determination. Flexibility must be retained with the administrative level responsible for the program. If a set aside is determined desirable at any point, it is recommended that it be implementated on an escalating incremental basis over the time frame of the new law.

RATIONALE

Three major alternatives were considered and discussed: (1) present legislation does address economic and social issues under each categorical listing, i.e. problems of urban and rural are listed under Exemplary language; (2) Future legislation should use social and economic issues as an umbrella or preamble to the program improvement provisions with or without set asides directed to same; and (3) Legislation could require that social issues be among but not the only program improvement priorities.

If alternative one is followed there would be no change in legislative format. Subtitles such as research, exemplary, etc. would prevail with each subtitle containing a list of concerns to be addressed as part of the narrative description. Experience has shown that this subordinates the social issue to the process for solution, when it should be the other way around. Therefore there would be little likelihood of increased legislative support for this alternative since Congress is more issue oriented than process oriented.

Given alternative two the issues would be highlighted with the process becoming the vehicle for solution. However, there is a danger that if issues are too prominent they tend to be taken as exclusive mandates by the Executive Branch. The fear being that if issues such as worker productivity, economic development, displaced workers, equal access and sex equity are specifically identified they could become the only priorities receiving attention leaving curriculum and materials development, teacher education, etc. out in the cold.

If alternative 2 were taken, it is crucial to design an approach which avoids the likelihood that unrealistic performance expectations for immediate results would be placed on vocational education in the major areas of national concern. It is safe to assume that initial research and policy efforts toward addressing national concerns should be a federal level priority as opposed to a state level priority. This problem might be avoided by providing for modest escalating increases in funds allocated toward program improvement activities related to addressing economic and social issues of national concern for each year during the period of legislation. Incremental changes would allow vocational education to systematically adjust, design and plan for program improvement activities that address national concerns. At the same time, this approach could prevent the loss of field support from the secondary level, could increase the support from the adult and postsecondary level, and could hopefully gain support from legislators who realize that need for such capacity buildings and that capacity building takes time for the acquisition of qualified staff and resources.

ISSUE NO. 9

Should Vocational Education provisions be coordinated and interlinked with provisions of other federal laws?

RECOMMENDATIONS

The Task Force recommends that vocational education provisions should be sought in other federal laws such as ESEA, Higher Ed, Teacher Ed, Career Ed, YEDPA, P.L. 94-142, Rehabilitation Services, etc. The audience at the AVA Convention was supportive of linkages where it was beneficial to vocational education but included that caution should be exercised concerning this recommendation. The fear of linkages was tied to a fear of loss of control if this recommendation is not carefully considered and implemented. Caution should be exercised here based on benefits to us.

RATIONALE

Vocational education is much broader than the parameters established by P.L. 94-482. The program improvement elements of P.L. 94-482 should be linked with other legislative acts. The purpose of this proposed action is to involve the entire range of federal agencies responsible for delivering vocational training in the articulated improvement of vocational education at local, state, and national levels.

Vocational education provisions should be sought for each of the following major Federal Laws:

Elementary and Secondary Education Act as amended.—Vocational Education should become a specific set aside percentage for support as part of the elementary/secondary program expenditures.

Higher Education Act.—Vocational education preservice/teacher education should become an integral part of the school or college of education program in the higher education institutions and should receive fiscal consideration equal to other education programs in the law. Efforts should be made to institutionalize a capacity building element for vocational education in higher education institutions.

Teacher Education Bill (Senate Bill 316).—Consideration should be given to include supplemental funds to higher education institutions for preparation of vocational education personnel in key shortage areas which presently include (but are not limited to) agriculture, allied health, and business.

Career Education Incentive Act.—Coordinate provisions in the Career Education Act with vocational education to assure that program articulation takes place with regard to career awareness, orientation, exploration and preparation. Since both Acts have provisions for preservice and inservice of personnel (primarily in the areas of guidance, counseling and career development) an articulation provision is needed.

Youth Employment and Demonstration Projects Act.—A set aside provision should be established for state departments of vocational education to promote supportive services in the areas of career information and local comprehensive planning.

Education for All Handicapped Children Act of 1975.—Strengthen the articulation between provisions in the two Acts which relate to the respective target programs to improve upon the delivery capacity intended in the two Acts and to enhance cooperation of personnel development and dissemination efforts.

Rehabilitation Services Act.—A program improvement provision in both the rehabilitation and the vocational education Acts needs to be provided to examine the role of vocational education in the articulation and delivery of services for rehabilitation clientele.

Youth Incentive (Proposed).—This bill contains a strong emphasis on program improvement. It should tie very closely with all aspects of the vocational education bill.

Transitional Vocational Education Services Act.—Provisions should be made to have this pending bill become an amendment to the Vocational Education Act of 1963, as amended. Provisions should also be made for an extensive R&D effort to examine the merits and limitations of an Individual Employment Plan concept. A major program improvement provision (research, development, demonstration) should be included which would allow for enhancement of the employment and training programs for unemployed youth.

Other related laws which require articulation and joint program improvement consideration: (1) National Energy Conservation Policy Act; (2) Small Business Act; (3) Criminal Justice Act; (4) Bilingual Education Act; and (5) Social Security Act.

Vocational Education should also relate to at least two agencies that are not necessarily tied by legislation. They are: (1) Department of Defense, (2) Bureau of Indian Affairs.

There are several modes of providing interface with other agencies and laws such as: Fiscal set-asides for specific program functions; language requiring cooperative endeavors (planning; establishment of non-duplicative R&D priorities); and language which calls for articulation and communication between organizations, agencies, and institutions.

The proposed Youth Bill is an example of the type of interface that would be beneficial.

Research and development activities

The research undertaken jointly by vocational education and employment and training researchers should include:

Study of the youth unemployment situation—is it a structural or a cyclical phenomenon that will diminish if adult unemployment rates fall?

Design of programs that are more rational or structural in nature, that are flexible and include labor, business and industry.

Apprenticeship trends, etc., with incentive for organized labor and industries to perform support services and training on the premises.

Studies to investigate the effects of an income maintenance program component on program participants that would look at modification, performance, completion, placement and success.

Studies of the effects of guaranteed income.

Investigation of the developmental stages of youth to determine the crisis periods as a move from teens to early adults in a climate where unemployment has been a "way of life".

What guides are needed?

What support services should be offered?

How best do you supply career information?

What part of programs should be tempered with kindness, understanding and empathy versus whim?

When does one or does one get hard-nosed, practical and insistent?

Studies related to the review or establishment of policy.

Studies to review the operation of the educational system and its impact on jobs to discover: At what stage (age 12, 15, 17) should a student have a semester on the job? What could be learned if industry were encouraged with financial assistance to take early teens on the job to "shadow" and discover what basic skills they need? How do we change this system in order not to flood the market at Christmas, in September and in July?

Studies to determine what life skills can be taught before going out on the job. What should be taught upon re-entry to school programs? Should more training be desired?

Studies to evolve new work opportunities that relate to the realities of a technological ever-changing world.

Studies designed to determine if there really are differences in the stages and development of unemployed youth and their employed counterparts. Based on these findings, design a variety of opportunities and experience from which youth may benefit according to circumstances, abilities and interests. Each opportunity should relate to realities to the world of work rather than be as a skilled laborer, semi-professional or professional. The program should show progression from one opportunity to another. It should be flexible enough to expand or contract the options offered.

Studies to determine alternative ways of linking vocational education, state and local offices of employment security, CETA and employers to assure maximum usage of education training and employment opportunities.

Development of models to link vocational educators, their capabilities, labor economists/statisticians in planning programs for meeting needs of special persons.

AFTERMATH: OTHER CONSIDERATIONS THAT TEND TO HAVE STRONG SUPPORT

Several times throughout the process it was made clear that the task force was to look beyond what might exist today as elements of program improvement, or in other words to "dream a little". This proved to be the most difficult task since the human elements of protecting what exists and of not being able to look beyond today seemed to prevail. However, the following items bear strong consideration as elements that need to be included. It should be noted that there may be other places in the legislation that provide a higher degree of compatibility in terms of relevance. If this is the case, this task force has no pride of ownership and willingly concedes to these points being applied. It should be emphasized that some of these elements surfaced frequently at meetings such as the AVA Convention and the State Directors Conferences.

Perhaps program improvement is an inappropriate term for what has been defined and discussed in this paper. The rationale behind this statement seems to lie in the fact that the term means different things to different people. Program Improvement is defined in PL 94-482 as research, exemplary and curriculum development.

Program improvement as defined in this paper includes those broad elements of research, exemplary, curriculum development, personnel development, dissemination and utilization assessment, evaluation and impact. This definition infers the inclusion of everything that occurs up to the mythical point that a local agency assumes full operational control and responsiblity for a product, innovation or trained person.

A broader definition that surfaces very often is that program improvement includes or should include the support of the initiation of new program starts, (traditional and/or emerging) on a large scale to include provision of equipment, etc. Another dimension to this line of thinking suggests that developmental and/or improvement funds should be made available for direct application at the local level in terms of improved curriculum and staff development. Procedures for funding could include formula or mini grants. Therefore it is specifically recommended that:

A. The writers of the legislation should give serious consideration to expanding the definition of program improvement to include at least the mass implementation/improvement concept or consider using another term, such as research and development in lieu of program improvement. Some danger is inherent in changing terms because the field and Congress must be re-educated.

B. Strong consideration should be given to the merits of providing a major line item for facilities and equipment, especially for those depressed areas with high concentrations of targeted populations and low availability of capital resources.

C. Strong consideration should be given to providing a set aside provision within a broad based program improvement concept for mini grants to the local level that can be used for local curriculum adaption/adoption/development, purchase of audio-visual or supportive teaching materials and staff development based on local needs.

2. Given a separate title for youth and/or adults, strong consideration should be given to the inclusion of targeted funding that provides for research and inquiry, model program development and implementation and teacher training directed at the targeted concern. This could either be included under a Program Improvement concept or under the Youth/Adult titles.

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SUMMARY

In conclusion the Task Force makes the following general recommendations for consideration:

(1) A. The federal role should include administration coordination, and monitoring. The federal level should have the capability of supporting a nationwide system that, at a minimum includes the National Center for Research in Vocational Education, Regional Coordination and Dissemination Centers, project activities specifically directed at long range planning, policy development, and programmatic assessment and evaluation, national prominence issue activities and field initiated activities. Major provisions should be made for personnel development leadership programs and university personnel development capacity building.

B. The State level must include a systematic continuum of activities including research and inquiry, curriculum development, demonstration and innovation, personnel development, dissemination and utilization and evaluation, assessment and impact analysis directly related to the program improvement function.

(2) After careful study the committee wishes to support a much stronger emphasis on personnel development at all levels but does not believe that a separate title will survive the political process.

A. Legislation should continue to provide leadership development and staff development through a fellowship program, the National Academy and the Advanced Study Center. A strong element at the Federal level that provides for personnel development and teacher education capacity building at the university level as well as the capability to fund projects that provide staff development around topics of national and regional emphasis should be added.

B. Provide State level support for pre-service and in-service activities of all types.

(3) A. National Program Improvement activities to include the National Center, Regional Coordination and Dissemination Centers, projects of National Significance, (pre-determined and field initiated) and vocational education personnel development activities should be support by a 10 percent set aside of the funds allocated for vocational education on an annual basis. Personnel development should receive approximately 50 percent of this.

B. It is further recommended that provisions for National Program Improvement activities be combined with the National and State Advisory Councils, National and State Occupational Information Coordination Councils, Programs for American Indians and other titles of national interest under a broad title of Programs of National Consequences.

(4) State level activities to include research and exemplary and innovative, curriculum development, personnel development, dissemination and utilization, and evaluation, assessment and impact related to the program improvement function should be coordinated by a single unit through the Comprehensive Plan for Program Improvement. Program Improvement should be an integral part of the Basic State Grant with provisions that a State shall spend a minimum of 30 percent of its funds for program improvement activities. If a youth and adult title are present in the bill, specific provisions should be made in these titles for program improvemet related to youth and adult thrusts.

(5) Both the State and Federal levels should have the administrative flexibility to use contracts, cooperative arrangement, grants and/or internal staff to fund/conduct program improvement activities and should have the discretion of establishing long term agreements that lead to change.

(6) Program improvement managers should be accountable for the use and impact of products and services provided through these resources. Present "impact" legislation language is misapplied and impossible to interpret. It should be reviewed and rewritten with appropriate linkages tied to functions. Specific attention should be directed at the inferences related to research since present provisions have the effect of limiting research activities to the development of curriculum and instructional materials.

(7) A. Guidance and Counseling Programs need greater emphasis in the legislation, especially, in areas of personnel development. Present set aside language is unclear as to whether primary emphasis is on program improvement or program operation. Given a single title for Basic Grants at the State level not less than 5 percent

of Basic State Grant should be allocated to guidance and counseling. Program Improvement aspects related to Guidance and Counseling should continue to be emphasized as a Program Improvement priority.

B. Sex Equity should be retained as a major priority for Program Improvement support.

(8) Economic and social issues of enduring prominence such as equity, economic development/efficiency, depressed communities, energy and demographic changes should be major overriding priorities with adequate funding for program improvement efforts.

(9) The Program Improvement provisions of vocational edcuation should be coordinated with ESEA, Higher Education, Teacher Education, Career Education, YEDPA, Special Education, Rehabilitation, etc.

Statement of the American Vocational Education Research Association[1]

LEGISLATIVE STATEMENT

The principal legislative concern of the American Vocational Education Research Association (AVERA) is that of provisions for federal, state, and local program improvement in its various forms—research, curriculum development, demonstration, dissemination, and personnel development. It is the position of AVERA that developing the capacity for program improvement in federal, state, and local educational agencies is an appropriate and important federal role in vocational education. Further, it is AVERA's position that national leadership for program improvement can be exercised only through agencies at each level which have capacity to respond to changing needs in the employment market, advancing technology in employment skills, and special needs of particular groups.

There are three fundamental problems in vocational education program improvement. The first has been the failure of the annual appropriations process to assure continuity of purpose and continuity of an adequate resource base. The second has been a legislatively driven system of program improvement management which is overly regulated and non-responsive to the real priority needs of a rapidly changing system. A third fault in the current system is a lack of safeguards that insures that activities are funded with agencies that are dedicated to the improvement of vocational education to the degree that they are willing to contribute human and monetary resources to the process as well as guarantee that they have the inherent capability to adequately train people to implement any and all outcomes on a long term basis.

In an effort to help solve these fundamental problems, AVERA has developed a series of recommendations which are organized here under five basic issue categories: (1) Funding for programs of national significance; (2) planning of program improvement; (3) administration of program improvement; (4) nature of program improvement; and (5) procedures for program improvement management.

AVERA respectfully requests that these recommendations be included in the Reauthorization of the Vocational Education Act of 1963.

ISSUE 1: FUNDING FOR PROGRAMS OF NATIONAL RESEARCH RELATED ACTIVITIES

Allocating a percentage of the operating budget for research related program improvement (i.e., research and development) is a sound procedure. Overriding the procedure in annual appropriations has the effect of removing program improvement from the law and leaves only program maintenance. The current 20 percent of basic grants for program improvement at the state level may be adequate, however, several states would prefer to have it increased or have the 20 percent that is currently allocated stated as a minimum state level set-aside. The five percent at the national level, even if fully appropriated each year, is definitely not adequate. Nationally research-related program improvement activities would be initiated by the federal agency designated to administer the program and followed through by grantees and contractors selected to carry out the programs. The programs should include the National Center for Research in Vocational Education to carry out currently mandated national functions; curriculum coordination centers to coordinate and disseminate curriculum at the regional level; specific projects to study current, critical problems; and colleges and universities to provide personnel development and research and development institutes program. State program improvement and support services should be initiated by the state research coordinating unit and be supported under the State Basic Grant concept. Action would be in a variety of forms—research, curriculum development, personnel development, dissemination, evaluation, etc.—comprehensively planned for the state and coordinated with other states through the National Center and regional curriculum coordination centers. Special attention should be given to insure that all activities be funded with agencies capable of conducting the work, that are willing to contribute to the process and that have the capability to insure implementation and utilization training at both the pre-service and in-service level on a long term basis.

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[1] The American Vocational Education Research Association is a 400-member affiliate of the American Vocational Association. Its purpose is to stimulate R&D, foster cooperative R&D efforts, stimulate R&D training, and facilitate dissemination. It publishes the Journal of Vocational Education Research and Beacon. AVERA conducts the convention programs of AVA's Research Section and AVERA's Special Interest Group of Vocational Education.

Recommendation 1: Increase the designated funds for Programs of National Significance from "an amount equal to 5 per centum" to "no less than 25 per centum."—Federal aid for research-related activities is needed for several reasons: (a) It will be directed at alleviating high priority national problems and dysfunctions; (b) it will increase the payoff in program operation by all levels of government; (c) it will permit the federal government to excercise a significant and appropriate level of leadership; and (d) it will help build the capacities of state and local agencies for program improvement.

Leaders of business and industry advocate that at least 10 percent of total operating costs should be allocated to R&D. At the current ratio of federal to state and local expenditures for vocational education (one to ten), that would mean that all of the federal appropriation should be used for program improvement. Of the federal appropriation, at least one quarter should be allocated for research and research-related activities which are coordinated with other program improvement processes such as curriculum development, dissemination, personnel development, and evaluation.

Recommendation 1B: Research-related activities in vocational education should be implemented through the following programs: Project Awards, Institutes, State Grants, and a National Center for Research.—In the Project Award Program competitive awards given by the Secretary of Education should tap the widest possible array of talent in private and public sources to the development of creative ideas and the solution of problems with nationwide significance. Procurement modes should accommodate a wide variety of possibilities including multiple-year curriculum coordination centers, field-initiated study grants, contracts, and cooperative agreements. Not less than twelve "institutes" should be authorized, each for a period of up to five years. The "institutes," to be administered through departments of vocational (teacher) education in colleges and universities, should engage a variety of scholars within each institution in (a) programmatic applied study designed to examine the continued relevance and effectiveness of the vocational education system and to address long-range nationwide problems, and (b) leadership training in vocational education.

A National Center for Research in Vocational Education, chosen by the Secretary of Education once every five years, should continue to conduct research, leadership development, dissemination and utilization, information for policy and planning, clearinghouse, and evaluation functions currently mandated in the legislation.

Federal funds should continue to be allocated to states and territories through the State Grant Program. These funds should be used to support research-related activities, including research coordinating units, curriculum development consortia, and instructional materials centers, as determined most beneficial by the sole agency for vocational education in each state or territory.

Expected consequence.—Existent national, regional, and university level organizations could provide better leadership to federal and state educational agencies, foster cooperative efforts, and solve the significant national problems which require continuous, coordinated commitment.

ISSUE 2: PLANNING OF PROGRAM IMPROVEMENT AT ALL LEVELS

Current legislation requires five year state plans and annual program plans. The same careful plans for use of such resources is needed at the federal level. Research and development, dissemination, and other program improvement activities can be most effective when they are programmatic, coordinated, and designated as part of a total effort focused on major goals and objectives. Program improvement planning at each level requires that priorities be established which result in sustained, programmatic efforts to solve the most important problems and deal with the major issues.

Recommendation 2: Program improvement at all levels.—Federal, state, and local should be based on comprehensive planning. Planning should be coordinated by the agency responsible for program improvement at each level. However, major priorities for program improvement in vocational education should be determined cooperatively by researchers and developers, practitioners, and the funding agencies—not by the agencies alone. They should be pervasive and fundamental enough to avoid frequent abandonment while permitting revision and shifting emphases as new issues emerge. Priorities should also be specific enough so that it is possible to assess when progress is being made and, similarly, when the priority has been accomplished.

Expected outcome.—Program improvement effort will be directed at major problems in vocational education, sustained long enough to solve the problems, and involve appropriate organizations in the effort.

ISSUE 3: ADMINISTRATION OF PROGRAM IMPROVEMENT

Administrative responsibility is frequently reshuffled in the name of economy, especially during a period of economic retrenchment or bureaucratic reorganization. The resulting fragmentation and discontinuity caused merely by administrative arrangements can make adequate funding and comprehensive planning ineffectual.

Recommendation 3: All program improvement activities should be the responsibility of a single unit in each state and of a corresponding single unit at the national level.—Programs of National Significance should be administered by a single unit in the federal agency for vocational education. A single administrative unit should be designated to administer the program improvement effort in each state. This unit should be responsible to the state director of vocational education, not absorbed into operational staffs.

Expected outcome.—Efficient use of funds and more effective planning is the likely result of holding a single administrative agency responsible for program improvement.

ISSUE 4: NATURE OF PROGRAM IMPROVEMENT

Within the broader realm of education and the social sciences, vocational education has been exemplary in many respects. It has directed its research priorities at program improvement, emphasizing practical application. However, it has had shortcomings because of undue emphasis upon applied research, performance contracting, and short term projects.

Recommendation 4A: Assure the availability of federal funds for both basic and applied research in vocational education.—Applied research, in which knowledge previously developed through basic research is used to solve problems and improve programs, should continue to be the principal means through which program improvement capacity is built and sustained. It should be supported, especially at the national level, through basic research in areas where new knowledge is most needed. There are many fundamental problems in vocational education which can best be solved by more "basic" research activities.

Recommendation 4B: Give additional consideration to program improvement performers who can demonstrate their ability to provide additional institutional support while carrying out the proposed activity.—Applicants for program improvement funding should, above all, be capable of performing the work needed. However, additional consideration should be given such applicants as vocational teacher education institutions which can combine the talents of scholars not available elsewhere, integrate the work with graduate programs, use demonstration and experimental sites, and provide preservice and inservice training with the results.

Recommendation 4C: Direct a portion of the federal and state vocational education research appropriations into field initiated studies.—Outstanding researchers, as well as young researchers and scholars in other fields, can contribute to program improvement. The present RFP system as operated at the federal level and by some state agencies assumes that knowledge of research and development needs are to be found in the funding agencies only. Current practices supported by this assumption should be replaced with procedures which draw upon the knowledge of the field.

Recommendation 4D: Support long term as well as short term vocational education research with federal funds.—Relatively short multi-year projects are supported now, but a time span of five or more years should be made possible for studies that require sustained effort. Single year projects should be limited to those for which a strong research base has already been established and from which a specific product is both feasible and justified. The nature of the problem should determine the length of a project. Both federal and state agencies should be responsible for making that determination, not the funding system.

Expected outcomes.—Vocational education will be able to renew its intellectual capital through basic research, draw upon the best talent, sustain effort long enough to solve problems, and institutionalize its advancements through existent organizations.

ISSUE 5: PROCEDURES FOR PROGRAM IMPROVEMENT MANAGEMENT

Some management procedures used at federal and state level have been counterproductive. Excessive use of contracts, the five-year impact requirement, and forms clearance procedures have been the most troublesome.

Excessive use of contracts based on request for proposals (RFPs) inevitably reduces the likelihood of high quality. It depends on the design capability of agency staff. Quality is further limited by those who respond to RFPs. It is limited again by the review panels. Also, a substantial part of the funds and staff time are required for the process.

The 5-year impact requirement in the 1976 Amendments in practice has the effect of limiting projects to those for which results can be guaranteed. No-risk research is a contradiction and of doubtful value. Research involves risk and, on occasion, the greater the risk the greater the potential benefit. Vocational education research should not be restricted to no risk at all. An imbalance of curriculum products and a shortage of new knowledge the inevitable results.

The requirements which now govern approval and use of data collection instruments seems disorganized and self-defeating. It has clogged the pipeline of knowledge. When knowledge cannot be obtained, the only alternatives are stumbling, nonsystematic approaches to program improvement or perpetuation of the status quo.

Recommendation 5A: Authorize the use of cooperative agreements and contracts in federal support of research and other program improvement activities.—State and federal agencies should be held accountable for the quality of research and related service they administer, and this is possible only when they exercise judgment rather than follow regulations in determining when to use RFPs, and also when use grants or cooperative agreements.

Recommendation 5B: Remove the five-year impact requirements from all research provisions.—Congress should remove the five-year impact requirements from the legislation and the federal agency should remove it from the rules and regulations.

Recommendation 5C: Clarify and establish reasonable procedures for forms clearance.—The federal agency should be required to review its forms clearance process, steamline the process, and use the process to facilitate rather than hinder research.

Expected outcomes.—Research results will be more relevant of higher quality and more timely if these restrictive procedures are improved or eliminated.

Information Series No. 192

MANAGING PROGRAM IMPROVEMENT:
ONE STATE'S APPROACH

Executive Summary

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The National Center for Research in Vocational Education
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1980

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Project Officer:	Paul Manchak
Contractor:	The National Center for Research in Vocational Education The Ohio State University Columbus, Ohio 43210
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FOREWORD

Program improvement in vocational education calls for timely investments in research and development activities in response to identified needs. Key elements in this complex process must be carefully orchestrated for efficient and effective use of resources. One state's approach to the development and operation of a research coordinating unit is described in this paper. This model depicts program improvement as a continuous process involving such activities as priority determination, research, product development and testing, diffusion, implementation, and impact assessment. Although this model may not fit into the management framework of every state, the key elements should be found in each state's program improvement operations. The author, Ronald D. McCage, has also provided a useful interpretation of existing legislative mandates in vocational education. This one state's response to legislative mandates represents a valuable contribution to our knowledge of program improvement processes.

The concepts in this summary have been excerpted from a more extensive technical paper. The paper contains additional information on the legislative mandates, program improvement continuum, guides for writing and evaluating proposals, and final report/abstract formats. The technical paper has been submitted to the Educational Resources Information Center (ERIC) under the same title as this summary.

We appreciate reviews of the draft document by Charles Hopkins, Assistant Director for Supportive Services, Oklahoma State Department of Vocational Technical Education; Charles Mojkowski, Educational Consulting Services; and Floyd McKinney, Program Director, National Center. We are indebted to Brenda MacKay and William Hull for their editorial assistance and advice provided in the development of this paper.

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MANAGING PROGRAM IMPROVEMENT: ONE STATE'S APPROACH

This executive summary highlights key elements of a paper produced by the National Center for Research in Vocational Education for persons interested in maximizing benefits from research and development in vocational education. This paper describes the legislative background, conceptual model, essential framework, and operational guidelines for a state-managed vocational education program improvement system. One state, Illinois, is used to illustrate the program improvement function through the research coordinating unit. The concepts in the paper may take various forms of relationships and procedures within a particular state governance structure, but the concepts of priority development, research and planning, development and testing, and diffusion/implementation are considered essential to a comprehensive program improvement framework.

Legislative Background

Legislation for the support of vocational education is a good example of Congressional concern for solving problems. In fact, vocational education legislation has been one of the major vehicles used by Congress to address new and emerging social issues. The Smith-Hughes Act of 1917 utilized vocational education as a method of retraining and rehabilitating the general population as well as veterans returning from World War I. The Vocational Education Act of 1963 encouraged the funding of training programs based on serving the individual needs of people as opposed to the prior emphasis which provided funds for the support of selected categorical programs. In this Act, Congress provided funds for a research coordinating unit (RCU) in each state to conduct research and development activities to improve and upgrade programs in the field.

In 1967, the implementation of the Vocational Education Act was reviewed and evaluated. Congress was displeased to learn that the social issues implied in the 1963 Act had not been addressed to the degree intended. The same basic programs had continued to receive support in a manner similar to the pre-1963 era. One bright spot in the Congressional review was the successful implementation of the research coordinating unit concept. Consequently, in passing the 1968 Amendments to the 1963 Vocational Education Act, Congress made the RCU a permanent part of the states' program for vocational education program improvement. In addition, Congress also included line item categories for curriculum development and exemplary programs.

Prior to amending vocational education legislation in 1976, the Congress conducted extensive oversight hearings to determine the strengths and weaknesses of the 1968 provisions. Simultaneously, no less than four major studies were conducted to determine the effectivess of the $250,000,000 that had been expended for research and development activities at the state and federal levels since 1965.

The most significant of these studies was the two-year study by the Committee on Vocational Education Research and Development (COVERD) under the auspices of the National Academy of Sciences. Major COVERD conclusions and recommendations were parallel to the general provisions contained in Subpart 3, Program Improvement and Supportive Services of the Education Amendments of 1976, PL 94-482.

Significant findings of the COVERD committee, which include but are not limited to the following, are:

1. *COVERD included all aspects of Part C–Research (federal and state shares), Part D–Exemplary and Innovative Programs (federal and state shares), and Part I–Curriculum Development (federal only) in its definition of research and development.* COVERD charged that these programs had been conducted in isolation from each other, they had been operated without a sound set of long-range priorities, and no comprehensive model or plan was used for their management. Public Law 94-482 responded by eliminating the categorical line items in the 1968 Amendments and by consolidating research, exemplary and innovative programs, curriculum development, guidance and counseling, personnel development, and grants for elimination of sex bias and sex role stereotyping under Subpart 3–Program Improvement and Supportive Services. The Act further specified that program improvement, which was legislatively defined as research, exemplary and innovative programs, and curriculum development, would be coordinated by a research coordinating unit. At a minimum, the Comprehensive Plan for Program Improvement would contain the structure of the RCU, the state's priorities for program improvement, the state's method for addressing the priorities, the state's allocation of resources to each priority, and the procedures to be used for dissemination of its products and services to the local level.

2. *COVERD charged that the $250,000,000 expended for research and development during the ten-year period (1965-1975) of the 1963 Act and the 1968 Amendments had no documented evidence of significant impact at the classroom level.* Visible evidence was available, according to COVERD, but researchers and research managers had not done an adequate job of addressing it. The 1976 legislation addressed this problem by putting in two provisions which were aimed at providing greater control and accountability. The first of these provisions was the need to use contracts to accomplish objectives or to do work internally. This provision applied to both the state and federal levels. Even though the original intent was admirable, the resulting problems in implementation have made the "contract only" form of funding less than desirable at both levels of government. The second measure passed by Congress was the inclusion of an impact or use statement within the law that put certain restrictions on research and curriculum activities. This provision requires the applicant to be able to show at the proposal stage that the idea put forth has a reasonable probability for significant use in a substantial number of classrooms or learning situations within five years of the termination of the contract. The ambiguity of this statement and the lack of clarification in the Rules and Regulations has caused this provision to be less than effective. Its inclusion of the words "curriculum materials" and "instructional techniques" has caused most states to limit research activities to a curriculum thrust.

The Program Improvement Conceptual Model

Illinois has developed a method of comprehensive program improvement to respond to national priorities. This process is based on a continuum which includes research, development, and dissemination/diffusion activities designed to impact on local level programming. This continuum consists of four major phases:

(1) Priority development phase
(2) Research and planning phase
(3) Development and refinement phase
(4) Dissemination phase

The continuum is cyclical in function in that information and feedback obtained at each phase can result in revision and refinement of ongoing activities as well as provide direction to future activities. Inevitably, the feedback obtained through the dissemination phase (Phase 4) provides for the identification of new priorities to be addressed in Phase 1. This cyclical process, described in figure 1, can result in a continuing responsiveness of vocational education to the emerging priorities of local educators.

Priority Development Phase

PL 94-482 requires that all program improvement activities be based on sound priorities. It is possible to determine and respond to national and state priorities through a process that is generated from state and local data. In Illinois, for example, an abbreviated survey is distributed annually to several diverse populations: educational administrators; vocational directors and classroom teachers at the elementary, secondary, postsecondary, and university level; key administrators and staff in business, industry, and labor; and private firms in educational management research and materials development. The information obtained from the survey is supplemented, clarified, and refined through the examination of available data, review of related research, inquiries with state office staff, and input from conferences and meetings. The resulting priority listing tends to represent the real program improvement needs at the local level that can be addressed by a state agency.

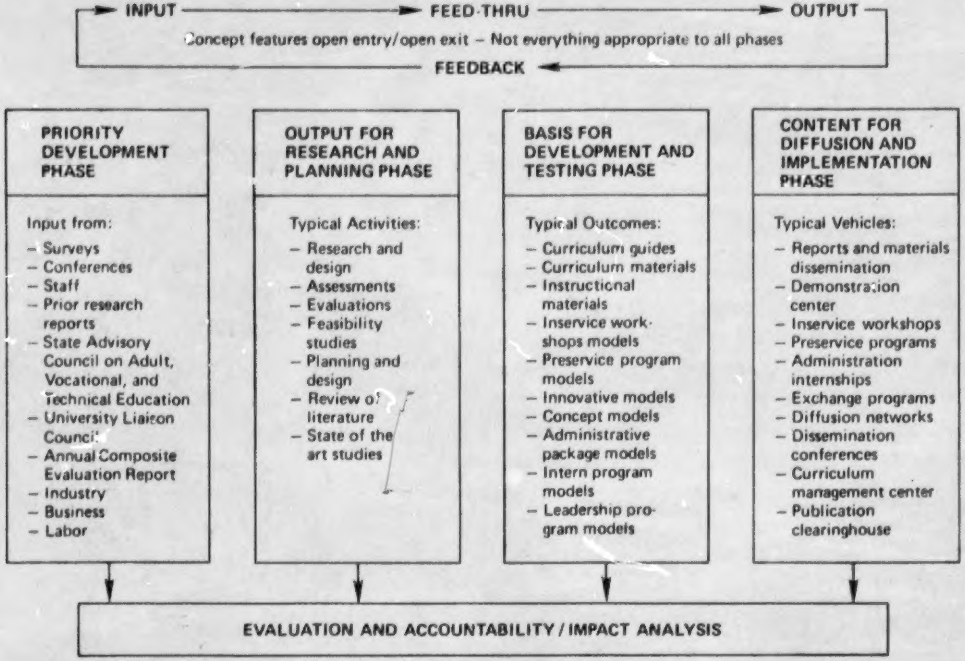
Research and Planning Phase

During this phase the state should verify that a priority is in fact a real need. This phase should center around traditional research, status assessments, evaluations, feasibility studies, and activities that are designed to determine the state of the art in a given area. Major planning and design efforts should be conducted toward the end of this phase that are based on the outcomes of the assessments and evaluations. These designs and planning efforts should serve as the basis for products or services to be developed and delivered in later phases. Diffusion strategies should be identified in this phase that will help define selected activities in the development and testing phase.

Development and Testing Phase

The development and testing phase should be dedicated to those activities necessary to produce a product and to provide a service, such as curriculum materials, program guides, instructional materials, and supportive materials for teachers, counselors, and administrators. Illinois includes developmental work toward inservice and preservice programs as a part of this phase. Exemplary and innovative programs can be demonstrated during this phase as one method of validating a concept or product.

FIGURE 1.
Program Improvement Continuum for a Vocational Education Research and Development Operation



INPUT → FEED-THRU → OUTPUT

Concept features open entry/open exit – Not everything appropriate to all phases

FEEDBACK

PRIORITY DEVELOPMENT PHASE

Input from:
- Surveys
- Conferences
- Staff
- Prior research reports
- State Advisory Council on Adult, Vocational, and Technical Education
- University Liaison Council
- Annual Composite Evaluation Report
- Industry
- Business
- Labor

OUTPUT FOR RESEARCH AND PLANNING PHASE

Typical Activities:
- Research and design
- Assessments
- Evaluations
- Feasibility studies
- Planning and design
- Review of literature
- State of the art studies

BASIS FOR DEVELOPMENT AND TESTING PHASE

Typical Outcomes:
- Curriculum guides
- Curriculum materials
- Instructional materials
- Inservice workshops models
- Preservice program models
- Innovative models
- Concept models
- Administrative package models
- Intern program models
- Leadership program models

CONTENT FOR DIFFUSION AND IMPLEMENTATION PHASE

Typical Vehicles:
- Reports and materials dissemination
- Demonstration center
- Inservice workshops
- Preservice programs
- Administration internships
- Exchange programs
- Diffusion networks
- Dissemination conferences
- Curriculum management center
- Publication clearinghouse

EVALUATION AND ACCOUNTABILITY/IMPACT ANALYSIS

Diffusion and Implementation Phase

Techniques used during the diffusion and implementation phase have the ultimate goal of implementation in the classroom or other learning situation. The tasks may be simple or complex, such as mailing a document or conducting inservice workshops, preservice programs, internships, exchanges, or demonstration centers. The major purpose of the diffusion phase is to provide concepts and materials to the local level with the necessary technical assistance to implement the innovation. Simultaneous preservice or inservice is necessary for internalization of the innovative concepts by staff.

Essential Framework

A. Background

In order to prepare adequate guidelines for developing a framework, the following assumptions and parameters have been established:

1. The Rules and Regulations for implementing Subpart 3, Title II of the Education Amendments of 1976 indicate that if a state chooses to conduct program improvement activities which include Section 131 (Research), Section 132 (Exemplary and Innovative Programs), and Section 133 (Curriculum Development), they must be coordinated through the research coordinating unit (RCU). Since the Research and Development Section of the Department of Adult, Vocational, and Technical Education/Illinois State Board of Education has been designated as the Illinois RCU, this section is responsible for preparing a comprehensive plan for program improvement as part of the state's One- and Five-Year Plan. This comprehensive plan must include:
    - a. Priorities for program improvement
    - b. Methods to address these priorities
    - c. Allocation of resources for each priority
    - d. Dissemination procedures
    - e. Impact indicators
2. Section 134 (Vocational Guidance and Counseling), Section 135 (Vocational Educational Personnel Training), and Section 136 (Grants to Assist in Overcoming Sex Bias) are grouped under the umbrella of Supportive Services. Legislatively there are no ties between these funds and the state RCU function, but these activities can be managed by the RCU if the state chooses.
3. In Illinois, administrative responsibility for Sections 131, 132, 133, 135, and the sex equity grants provision of Section 136 has been assigned to the RCU. Placing the funding with this section provides for utilization of already existing processes for handling grants and contractual funding agreements.
4. The State Board of Education requires the following items in funding agreements:
    - a. Measurable objectives
    - b. Time-specific and outcome-oriented procedures related to each objective
    - c. Formative and summative evaluation processes tied to each objective and/or procedure that places a major emphasis on impact
    - d. Dissemination plan
    - e. Designation of job descriptions, names, and qualifications of personnel
    - f. Designation of deliverables
    - g. Program budget
    - h. Abstracts for summary and reporting requirements

The process for developing contracts follows these steps:

a. Pre-established priorities
b. Issuance of requests for proposals (RFPs)
c. Competitive review
d. Award of a funding agreement with predetermined and prespecified outcomes.

When a contract is based on an RFP, the board contracts with an external agency to perform a service or develop a product. Most of the tasks and methods used to address the issue are part of the funding agreement, and any changes made in the tasks or methods must be accomplished through negotiations between the board and the contracted agency.

5. The Research and Development Section has been given responsibility for contracting and establishing rules and regulations for this process. The contract administrator within this section is responsible for coordinating the contracting process and insuring that all management and monitoring functions are fulfilled. This staff person is held responsible for the success or failure of the given activity.

B. Project Categories

1. A number of projects funded from Section 130 do not require a content expert/resource specialist on an ongoing basis. For these projects, the contract administrator does everything necessary to fulfill the requirements of management and monitoring.

2. Increasingly the Research and Development Section is funding projects that fall under the broad category of program improvement and deal specifically with the development of curriculum and/or instructional materials used in local schools. This category of projects places the highest demand on the board for subject matter expertise from other sections and/or outside the department. The need for this involvement is based on such considerations as type of project, stage of development, and subject matter.

3. The third category of projects is funded from other than Section 130 and involves the support and operation of programs at the local level. The Research and Development Section is responsible for the project's fiscal management, while the program management remains with the section originally responsible for the management of that source of funds.

4. The fourth category includes activities, such as career guidance centers, funded from Section 130 for which the Research and Development Section is given budget preparation responsibility, while the overall management remains with the Special Program Section.

C. Framework

From the perspective of the Research and Development Section, there are four major points in the program improvement process that require the involvement of more than one section. Specific procedures for interface have been determined for each of the four stages.

1. Priority Input and Development

   a. In August the Research and Development Section initiates the priority determination process by conducting surveys and information analysis.

b. By October 30 all sections of the Department of Adult, Vocational, and Technical Education are asked to submit prioritized needs to the Research and Development Section along with needs input from the field and other sources.

c. By November 15 the section staff analyzes and summarizes all data and returns a composite to all other section managers for review and comment.

d. By December 1 all input is returned to the section for analysis and consolidation.

e. By the second Monday in December the section staff prepares a list of priorities with documentation and presents this list at a formal meeting of the Administrative Council for acceptance and approval.

f. Given final approval, the Research and Development staff translates the priorities into activity statements for inclusion in the annual plan.

2. Request for Proposal (RFP) Development

a. By January 15 the Research and Development Section manager meets with other section managers to determine the assignments for writing requests for proposals (RFPs). These assignments are generated from topics appearing on the approved priority list.

b. By January 30 a contract administrator and a resource person are assigned to each activity with the exception of open category activities. These cannot be done at this time due to the nonspecific nature of the open category concept.

c. The section makes all final arrangements for preparation and issuance of the RFP booklets by March 15.

3. Proposal Review

a. By February 15 the Research and Development Section manager meets with the managers of other sections to discuss the need for personnel to review proposals.

b. By March 1 the managers having personnel involved in research and development project reviews assign reviewers from within their section in accordance with the categorical need agreed upon by all managers involved. In addition, section managers are asked to nominate people from the field who would make good proposal reviewers.

c. Where possible, it expedites the process if the same person originally designated as a writing resource person for a task-specific RFP is assigned to review and later monitor the project in question. This assignment philosophy is consistent with the Research and Development Section practice of a contract administrator following a project from inception to completion.

4. Project Monitoring

a. Once a contract administrator and a content specialist have been named, these individuals meet to plot the course of a given activity. Plotting the course is based on the RFP and the intent of the activity. Role and function of each person is delineated at this time.

b. Once a proposal has been selected for funding, the contract administrator and the resource person meet to agree on points to be negotiated. Once these are agreed upon, the contract administrator proceeds with the negotiations. Disputes are resolved via the chain of command prior to entering negotiations.

c. Within 30 days after a contract has been approved, the contract administrator and the resource person meet with the contracted agency to lay out a plan of action.

d. Periodically throughout the contract, meetings are held in accordance with the funding agreement and the agreed-upon plan of action. In every case the contract administrator coordinates with other staff concerning the agenda for these meetings.

e. Project personnel are advised of the relationship between internal personnel and their role in the funded activity. In all cases, unless otherwise agreed upon, the project directors and staff are advised that their official contact of the board is the contract administrator for that project.

This process is summarized in figure 2.

Guidelines for the Operation of a Program Improvement System

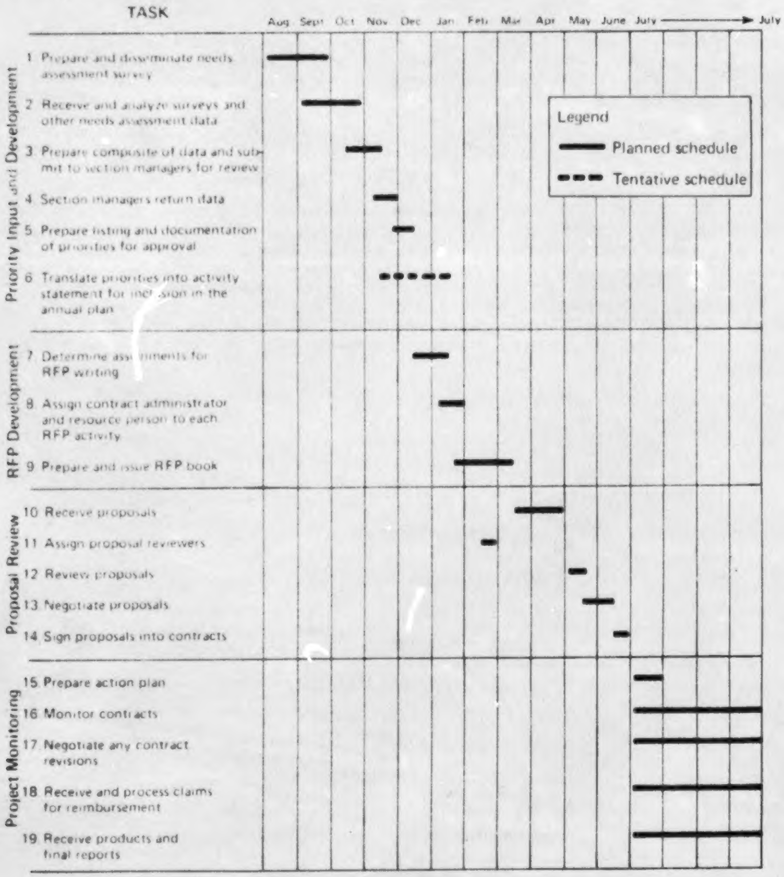
Obviously, there are several elements essential to the effective development and operation of a comprehensive program improvement system for vocational education through a research coordinating unit. The guidelines contained on the following pages are presented to states interested in developing and/or upgrading the program improvement function. The guidelines are presented in a brief and somewhat concise form so that they can be used as a review checklist. There are some key assumptions necessary to the understanding of these guidelines. It is assumed that the reader does have or will gain:

1. A thorough knowledge of all current legislation and rules and regulations that are applicable to the program improvement/research coordinating unit function in vocational education.
2. A knowledge of existing literature that is relevant to the management and operation of a research coordinating unit. The RCU should be an integral part of the state vocational education structure.
3. A philosophical or conceptual understanding of the program improvement function within a vocational education framework.
4. A conceptual understanding of the purpose of a research coordinating unit.

Given these assumptions, the following guidelines are absolutely essential to the development and operation of a comprehensive system of program improvement in vocational education:

1. Gain or have the administrative support of the state director of vocational education for the concept of program improvement. Without administrative support and involvement of key staff, the concept will fail.
2. A single unit should be responsible for coordinating all elements of the program improvement system. The current legislation calls this a research coordinating unit but this term may be outdated.
3. A state should have a conceptual base or operational model, such as research and assessment, product/service development and testing, diffusion and personnel development, etc. with assessment and evaluation mechanisms built into the operational model. This model provides for the articulation and coordination in and among the elements.

FIGURE 2
Task / Time Framework for
State Program Improvement Activities



4. Define program improvement as a comprehensive research, development, and diffusion process that is driven by a priority or state/local needs base as opposed to a collection of categorical programs such as research, curriculum, etc.

5. Have a comprehensive plan for program improvement which includes the administrative structure of the RCU, the annual priorities for program improvement activities, a description of the method for addressing these priorities, the allocation of resources by priority or need, and the various techniques to be used for dissemination and diffusion of the products as well as the methods to be used for accountability and input. Have a plan! Work the plan!

6. Develop a needs assessment process that produces sound data for identification of priorities for program improvement activities that looks at all aspects of vocational education and places a high level of emphasis on input and use of information from the practitioner at the local level as well as emphasis on traditional sources such as reports, advisory groups, and state staff.

7. Given a legislative directive for doing work internally or contracting externally, develop an equitable and fair process for soliciting and identifying those agencies that will address the state's priorities. Probably the most common competitive process is the request for proposal (RFP) process. Regardless of the process, insure that everyone involved knows the rules and that the system is operated according to the rules. An above-the-board, honestly operated system will generally be accepted and supported by the field.

8. Develop a method for evaluating activities while in progress and after completion. This process needs to be highly formalized so that the research coordinating unit is provided with accountability data for long-range impact purposes. Field testing and validation techniques should be an integral part of each activity. This evaluation and impact system should be integrated into every activity of the unit on an ongoing basis.

9. Dissemination and diffusion activities should be planned into every activity from the beginning of the activity. Without a good diffusion and dissemination process, one cannot expect to document significant impact referenced in the legislation. Make maximum use of the developers in the diffusion process. They know their product best.

10. Personnel development activities, both preservice and inservice, should be considered integral to a total program improvement concept. Not all personnel development activities can be defined as diffusion techniques, but preservice and inservice techniques can certainly be used effectively as diffusion devices.

11. Have an effective activity/project monitoring system that maximizes use of available staff and resources. Be sure the system is accountable within itself. Be sure contractual documents are outcome-based and budgeted in such a way that financial accountability can be established through auditing.

12. Have a system for the integration of other agency staff into the program improvement process. Maximize the use of resource people in their area of expertise using RCU staff as facilitators of the process.

13. Use local people to the greatest extent possible. They are where the action is. They are on the cutting edge and know the problems first. They are also the best barometers of whether something will work or not.

14. Have a well-balanced staff in terms of expertise, equity, etc. Assign responsibilities to staff and let them operate.

15. Be a risk taker. Nothing innovative will ever occur unless you are willing to stick your neck out.

Chairman **Perkins**. Let me compliment all of you gentlemen for outstanding testimony. I think you made your positions very clear, and your testimony will be very helpful to the other committee members when they read it.

I would like to ask Dr. Worthington a question, then let the rest of you gentlemen comment on this question.

I know, Dr. Worthington, that you are aware that Federal funds for all of these national projects have declined from $27.4 million in 1978 to only $7.8 million in 1982.

My question is whether you feel that this decline in funding has affected, in any way, the quality of local vocational programs? And if you do, just tell us how exactly.

Go ahead, and we will let the other members of the panel comment on it.

Dr. **Worthington**. Well, Mr. Chairman, in the State program improvement and supportive services category, under the 1976 amendments, the States and local communities have overmatched the Federal dollars by $3 to $1.

I think the States and the local educational agencies recognize the importance of this whole component of program improvement and have supported it quite well.

I do not feel that the decrease in funding has negatively affected the quality of local vocational programs because of the momentum that we have developed in the past. The funding, of course, as you have pointed out, has decreased since 1978, but the impact, I think, is still considerable because of the overmatching at the State and local level.

Chairman **Perkins**. Go ahead, Dr. Taylor, give us your view.

Dr. **Taylor**. I think in an absolute sense I would have difficulty saying that there have been direct effects on the quality of local programs. The difference, I think, is not so much a decline in the sense that when this stopped something changes immediately, but more in terms of what might have been, or what ought to be.

I think, clearly, you cannot take a decline of the magnitude mentioned in these various areas, effect budgets of NOICC and SOICC, the National Center, fewer national projects, eliminate the graduate fellowship program, and not over time have an impact on the quality, and more importantly, the potential of vocational education to react and to respond to new priorities and to new needs.

Clearly, I think it is happening. We have all tightened our belts. We have worked together, I think, better than ever before. We have a much higher commitment to using each other's products and services and avoiding duplication, but clearly, it has made a difference.

Chairman **Perkins**. Go ahead, Dr. Hopkins.

Dr. **Hopkins**. Mr. Chairman, is that I would concur with Dr. Taylor, I think that if you looked today and said, "Has it impacted?" I would have difficulty of telling you anything except the fact that I know that the things that we provide that do with program quality will start being reduced, because if we are going to have quality vocational education, there are certain things that have got to be in place.

If you take the funds away on the priority, the emphasis is going to impact upon those funds. And so, as dollars are being reduced, services and products have been reduced, which will impact upon vocational education.

Coming from a State perspective, I can tell you that most State legislatures appropriate by legislative intent, and as Federal priorities have been established, it helps drive the State appropriations. And when those elements don't come into place, then it very definitely affects the amount of dollars in the services that you are able to provide where Federal resources are in place.

Chairman **PERKINS**. Dr. McCage?

Dr. **MCCAGE**. Well, I guess I am a firm believer in the fact that the Federal dollar and the Federal law, regardless of how low it goes percentagewise, drives the wagon. The basic thing is that it may not finance the whole system, but every time you change a priority, or level of funding in the Federal legislative level, the ripples are felt at all levels.

I think that one of my former associates in Illinois, Peter Johnson, who is now the advisory council executive director in Illinois, says, "If you give me one Federal dollar, I will make $10 out of it. If I don't get any, I won't make any." And I think that is basically the way.

In terms of citing specifics, I have been out of the State operation for 2 years, but I know even in the organization, V-TECS, we have lost three States, which means six products a year, which eventually impacts back on students, that you can trace directly to the loss or decrease in program improvement funds specifically at the State level.

Chairman **PERKINS**. Let me direct another question to Dr. Hopkins or Dr. McCage, or anybody else who wants to comment on it.

The President, I am sure you know, is proposing a complete phaseout of the Federal role in vocational education, under the so-called New Federalism package. What impact would this have on vocational education research and program improvement? And I would like to ask if you feel there should be a Federal role in this area?

Dr. **HOPKINS**. Yes, sir. I feel that there should be a Federal role. Mr. Chairman, our national economy, and I think that all of us realize—and I would like to address it from this point of view.

If technology is changing, if we have lost productivity, if our unemployment is rapidly approaching a double digit, with all of these things driving the Federal budget and budget deficit, with the need for training—and I want to tie it to economic development, because without a trained work force, you cannot have economic development if people are not trained.

So if you look at all of the things that we hear are the things that this country is going to have to do to establish itself back into economic development at a base, how can we say that the very things that it takes to get you there is not in the best interest of the Federal Government?

So, with an absence of a national role, that is no priority at the national level to address the most critical problems this country has. If the States are going to develop that, it is not only do we have declining national economy, it is that basically every State is also facing the same thing.

To think that the State and locals are also going to have the resources to be able to gear up and to meet that is, in my opinion, false, also. So if it is in the best interests of this country, then should there not be a Federal role, and naturally, my answer is I don't see how we can fail to have a Federal role, if we are going to get our system back for economic development and keep up with technologies, and to train our workers, and to regain a competitive edge with the foreign competition, and to get our people employed again.

Chairman **Perkins**. Do you want to say something?

Dr. McCage?

Dr. **McCage**. Basically what I say is almost identical to what Charles has said. I think if you look at the so-called economic policies that we hear every day, it astounds me that the one element of the Federal law that could address that continuously gets cut or attacked for being ineffective.

I think, if you really compare the dollars that go into vocational education with other types of delivery systems, you will find that it is one of the most accountable systems that we have, and yet, one of the most effective in terms of what it buys. And I think that has been one of our problems. Is that we have been effective to the point that we have convinced local people—and if you really look at where the dollars are coming from, they are coming from the local level, in terms of your State match—we have convinced local people that vocational education is important, and they are going to try to provide for it.

But, again, without the impetus from the Federal level, they lose a lot of the stick they have to influence the local system. And, so I think if you take away dollars, you are going to have a tremendous effect on vocational education.

In program improvements, specifically, I could probably name the States on one or both hands that would still have an effective program-improvement system if you eliminated Federal support.

One of the problems program improvement has is that it philosophically has to compete with other areas, and without the emphasis from a Federal perspective, it is in trouble.

Chairman **Perkins**. Dr. Taylor?

Dr. **Taylor**. Yes. I think, clearly, there is a continuing and strong need for a Federal role in vocational education and program improvement. I think if you go back and look at the history of Federal legislation in vocational education, you will note that it falls into three general categories: (1), of trying to solve national problems; (2), of building capacity; and (3), of providing essential service.

I think all of those are critical concerns and needs that remain yet today. We have national problems that an in-place system like vocational education can address. We have the need for continued building of capacity, and there are obviously essential services.

When you look at a division of labor between the Federal Government and the States, it seems rather logical that research and development, information systems, evaluation and data services and so on, can best be supported from the Federal level. This assists in avoiding redundancy and duplicative costs, provides centralized services to the States and helps to move the country in terms of critical areas, such as economic development, equity and so on.

Mr. JENNINGS. Mr. Perkins has to take an important telephone call, but he will be right back.

Could I ask a couple of questions about the legislation that is in place right now? You all have talked about the 5-year requirement, and some of you have alluded to the requirement that there be a greater emphasis on contracts rather than grants.

Could you go down the table again, and tell the exact effect of the change in the law in 1976 putting a greater emphasis on contracts instead of grants, and why that is a disadvantage, if you believe it is?

Dr. McCage, do you want to start, or does Dr. Worthington?

Dr. WORTHINGTON. I think it would be more appropriate if Dr. Hjelm, who directs the division of national vocational programs and has been involved in it since it began, would comment.

Mr. JENNINGS. Thank you.

Mr. HJELM. I think what one needs is a balance between contracts and grants. There are certain procurements in which contracts are more appropriate, and others where grants are more appropriate. Where we have decided through planning efforts, on a specific job that needs to be done we can let an RFP, we can have people bid against that, perform the task, and come up with a deliverable. This works will using contracts, however.

Contracts do not permit you to respond to field-initiated ideas. A school might have a very good idea, and want to develop a program. There is really no way to respond to that through a contract mechanism.

Through a grant mechanism, you can receive a number of these field-initiated ideas, review them with panels, rank them, and fund the best of those that come in. There are many good, creative ideas in the field and you can't fund these through a contract. You need a balanced program.

Mr. JENNINGS. Anyone else care to comment?

Dr. Taylor.

Dr. TAYLOR. Jack, I would like to elaborate on that, and I have more detail in the testimony, but the key point, I think, is that a classical division between a grant and a contract is in a contract, you buy. You know what you want, you specify it, you detail it, and you buy it.

In a grant, you support. If you want to support good ideas, if you want to support creativity, if you want to support ways by which members of the scientific community can address critical problems, and come in with useful solutions, then the grant is the more appropriate mechanism.

Additionally, as you know, we have very, very severe requirements now with respect to gathering data. It takes 15 months to get approval to gather data, if you are funded under contract. The grant provisions, in general, free you up to move immediately, since you are supported to gather data in your name and in your own right.

For a national center, particularly, to have the kind of freedom to enable it to go out and gather appropriate data, and to turn around results more quickly is critical.

Again, when we have a situation where the national center is supported with five 1-year contracts, specified that all of our contracts or all of our projects are to be 1 year, then clearly, the 15-month data gathering requirement is a real, real problem.

Mr. JENNINGS. Dr. McCage?

Dr. MCCAGE. Well, I think the term "contract," Jack, means different things to different people, and I think if you take the basic principles of a contract, which means you have objectives, time lines, et cetera, and you expect an outcome, that, in a sense, is harmless.

The problem that has occurred is, the other people have mentioned, is that contract under our legislation right now infers procurement. Procurement infers almost totally RFP. And just the management, development and so forth of those becomes a very time-consuming process just to manage the process.

Now, we are for accountability, we are for the principles that one buys really, in a sense, in terms of a contract. It has been more or less the interpretation and application of what the word has caused as opposed to the real intent.

The contract grants and cooperative agreements let management decide what is the best vehicle for buying a service or a product. And I would concur with the others, basically, contracts buy products, and if you have good ideas from the local level, university level, those people won't participate, because they don't want to participate in that type of a system.

They are some of those most innovative people in terms of the solutions that you need to have to the problems.

Mr. JENNINGS. If I could ask another question. You heard the statistics on the precipitous decline of Federal money for these purposes from about $27 million, $28 million at one time, 1979, down to the present amount of about $7.5 million.

Given the present fiscal austerity at the Federal level, and also at the State and local level, if you presume that there is not going to be a great deal more money for this purpose, if there is going to be about the same amount of money or somewhat more, what would be the most focused way for the Federal Government to use its money; and what would be the best way to provide some national leadership to help the States, because if there is less Federal money, it would seem like there would be less Federal leadership.

And, as you know, vocational education, then, could become very decentralized in this effort with 50 States going in many different directions. So what should the Federal Government do with its small pot of money, and then what can it do to most effectively help to bring some national direction to what States might do individually with whatever they are spending?

Dr. WORTHINGTON. Jack, let me just comment briefly.

As you know, our proposal for reauthorization, the Vocational and Adult Education Consolidation Act, would authorize up to 10 percent of the total appropriation for national discretionary programs.

In our proposal, 1983 budget request was $500 million. This would authorize up to $50 million for those discretionary purposes.

Mr. JENNINGS. But if I could interrupt, Dr. Worthington, the history of it has been, as Dr. Taylor has alluded to, that the authorizing committee, which is in this room, writes the law and tries to set a percentage of money aside, whether it is 5 percent or whatever.

But then, traditionally, the Appropriations Committee does not follow that percentage, and this has been true all the way back to 1965, if I remember correctly.

Dr. WORTHINGTON. Correct.

Mr. JENNINGS. And so, a 10-percent set-aside, even if your block grant were to be enacted, wouldn't necessarily come about. In fact, given the fact that States would have much less money under your proposal, being cut back from over $700 million, to only $500 million it would seem unlikely that Congress, if it had a choice, would give more to the National Government and give much less to the States than they would get even if there were to be a full appropriation of $500 million.

Dr. WORTHINGTON. But if you look at the record, Jack, the authorization presently is 5 percent, the appropriations, 3 percent. So if the authorization were 10 percent, then it might follow that the appropriations would be about 6 percent.

We feel that our proposal would offer the Secretary a great deal more discretion than he presently has, and would improve these programs.

I found, at the State level, as a State administrator, that starting new kinds of programs at the local level, you are better off to fund rather heavily at first, decrease the funding and turn the programs over to the LEA the third or fourth year.

I think the same thing holds for Federal funding.

Mr. JENNINGS. Dr. Taylor, do you want to comment?

Dr. TAYLOR. Well, if you were to look at the present appropriation process, and read the report language on appropriation committees, the things that they have supported most strongly have been the major instrumentalities of program improvement, such as the National Center, National Occupational Coordinating Committees, and the activities of this nature.

We have difficulty in building and maintaining a constituency for some of the discretionary projects, curriculum coordination centers being an exception. We have had a lack of support for the graduate leadership development programs in the appropriation process.

What we have had over the past several legislative cycles is an initial acceptance of the Appropriations Committee of the set-aside. It lasted about 1 or 2 years, then it fades out. We have got to do a better job of reporting, and I think, clearly, we have to be attentive to the concerns of the Appropriations Committee with respect to product and impact, and those concerns may not always be the same as the authorizing committee.

Mr. JENNINGS. Dr. Hopkins.

Dr. HOPKINS. If we are talking about the current law, and looking at it, I think the things that are specified in the law for program improvement are extremely important to vocational education. And I think we have all emphasized, and will continue to reemphasize, is what we need in vocational education is the capacity to serve, and that capacity has to deal with the national priorities and concerns that ought to be established in the best interest of our National Government.

But we are talking about things that deal with quality. We are talking about the ability to offer programs and the new technologies and in the training technologies, and in the training areas, to meet both the people needs and the industrial needs.

It is the quality product and the quality aspects, and the things that are related to that with new knowledge, new techniques, new services, and to keep these programs current, Jack.

So I would encourage us to look from that point of view of making sure that the Federal role would continue to support program improvement, program delivery, and program capacity to meet national concerns and priorities.

Dr. McCage. Well, I guess if you put it in the context of very limited resources, as we have right now, I would say what Chuck has said, to support the things that are mandated, because I think they are extremely important. The National Center, some type of occupational information system—I am not sure NOICC and SOICC is the exact answer—but I think it may be a step in the right direction.

If we had money beyond that, I think I would support the curriculum network, and I would also support that we have got back to the point that we do have some Federal funds to address some national priority activities, and that is really what you are talking about as discretionary, and I guess beyond that, then at some point, I think we have to recreate the personnel development and leadership, fellowship-type program, even though the support is not as obvious, I think the outcome of it has been very good.

Chairman Perkins. Let me thank the—do you want to comment?

Dr. Worthington. May I just comment very briefly on your question concerning the New Federalism.

Chairman Perkins. Yes.

Dr. Worthington. I would like to point out, just for the record, that the President's New Federalism proposal would not only turn over the funding to the States, but also the funding sources, so that the States and localities would collect the money that is now being shipped to Washington. I feel that more of the money would get directly into the vocational education programs at the local level under the New Federalism proposal.

Chairman Perkins. Let me thank the entire panel this morning. You have been most helpful to us, and I am hopeful that all of the members will read your testimony. I hope to see you here again before the committee. Let me compliment the distinguished educational leader from Oklahoma for being elected the president of the American Vocational Association.

All of you gentlemen have been excellent witnesses, and I appreciate your taking time to come here and help us. If there is ever a time in the Congress that we need help, it is now, but let me say to you, I think the education programs are fairing as well as any other area of government.

We are all working together, striving for the right thing, and getting some results, which is something to take pride in.

I thank all of you gentlemen. The committee will now adjourn.

[Whereupon, at 11:19 a.m., the subcommittee was adjourned.]

[Additional material follows:]

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D.C., July 9, 1982.

Dr. ROBERT TAYLOR,
Director, National Center for Research in Vocational Education, Ohio State University, Columbus, Ohio.

DEAR DR. TAYLOR: During the hearing before the Subcommittee on Elementary, Secondary and Vocational Education on June 23, 1982, you testified on the accomplishments and problems of research and program improvement activities under the Vocational Education Act. Your testimony, of course, focused on the National Center for Vocational Education.

I would like to follow-up on one point and ask for your written response for the Subcommittee hearing record:

Your testimony seems to reflect an intensive level of fiscal audit and program review directed toward the National Center. As the contractor for this activity, how do you regard these reviews? Are they useful to the National Center and the government in planning, or could they be viewed as duplicative and disfunctional? How does the level of review and audit of your contract compare to that of other activities funded through programs of national significance?

Your response by July 23 would be most appreciated.

Sincerely,

BILL GOODLING.

THE OHIO STATE UNIVERSITY,
THE NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION,
Columbus, Ohio, July 15, 1982.

Congressman BILL GOODLING,
House of Representatives,
Washington, D.C.

DEAR CONGRESSMAN GOODLING: I appreciate very much your letter of July 9 and your sensitivity to one of the critical dimensions of my testimony on the National Center. I am enclosing my response to your question.

I hope that we will be able to schedule you for a visit to the National Center later this year. Thanks again for your interest and concern.

Cordially,

ROBERT E. TAYLOR,
Executive Director.

Enclosure.

RESPONSE TO QUESTIONS OF JULY 9, 1982

You are correct that the level of audit and review is intensive as well as extensive. Any review or audit generally has some salutory effects and side benefits to the institution being scrutinized. That is how we learn and hopefully improve our operation. However, there is a point of diminishing returns and it also takes a substantial amount of time and effort to prepare for an interface with these reviews. In some instances the reviews are duplicative and are beginning to intrude into regular operations in carrying out our mandated functions. Further, in other instances they are contradictory with respect to the Department's expectations. For example, we have just been reviewed by the Department's Service Delivery Assessment (SDA) under the Deputy Undersecretary for Management. This review focused almost exclusively on the views of clients of the National Center program. On the other hand the Office of the Deputy Undersecretary for Planning and Budget that has undertaken an evaluation of the National Center for Vocational Education Contract, acknowledges some of the prior reviews that we have experienced that were conducted by the Department, but indicates that they exhibit "important methodological or substantive limitations which may affect their findings materially" and goes on to indicate that none "of the reviews have been conducted by an agency without an immediate interest in the outcome and have relied heavily on judgments of NCRVE's self-selected constituents." (As an aside it is interesting to note that the midcontract review that was conducted by the Department's Office of Adult Vocational Education relied heavily upon social scientists and educational researchers who were outside of vocational education and who were not part of NCRVE's constituency.) But to the contradiction, the SDA which is just wrapping up, relied exclusively on client attitudes and beliefs concerning the National Center's adequacy. I might also point out that in addition to reviews and audits which we have undergone, we have testified each year to the Congress on the program and progress of the National Center. We have been visited by Members of Congress and several congressional staff members from different committees.

I'm not aware of other evaluations that have been undertaken in recent years, of other programs funded under Programs of National Significance. For example, the curriculum coodination centers have been in existence longer than the National Center contract, the various leadership development efforts and the Secretary's discretionary projects have not to my knowledge been evaluated. In this current review of the National Center by the Office of the Undersecretary for Planning and Budget, an early scope of work statement (obtained through a Freedom of Information Act request), purported to review the entire vocational education research effort. However, at this point, I am not aware of any evaluation activities underway except those directed toward the National Center. Dr. Worthington may have further insight with regard to other reviews completed or pending.

I would like to think that these evaluations in some manner improves the policies and procedures of government in its sponsorship of the Center. However, I cannot identify changes or improvements emanating from the reviews. For example, the Department's midcontract external review team made a number of recommendations for us such as "engaging in longer term research and development activities." However, the current request for proposal on the renewal of the National Center limits work to one year projects.

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